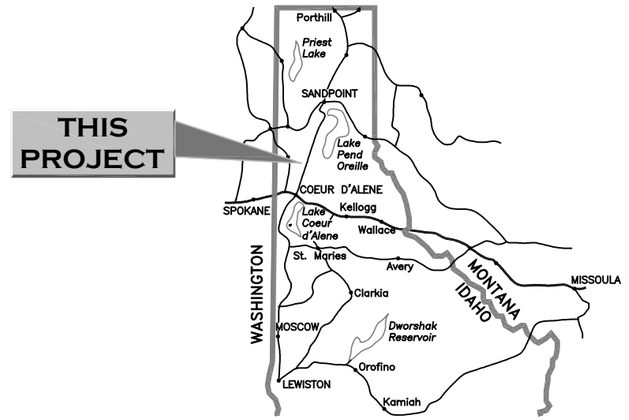
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE, REGION 1

ROAD AND BRIDGE PLANS FOR:

POTTER CREEK BRIDGE REPLACEMENT

NFSR 534 MP 15.7

COEUR D' ALENE RIVER RANGER DISTRICT
IDAHO PANHANDLE NATIONAL FORESTS
KOOTENAI COUNTY, IDAHO



NORTHERN IDAHO LOCATION MAP

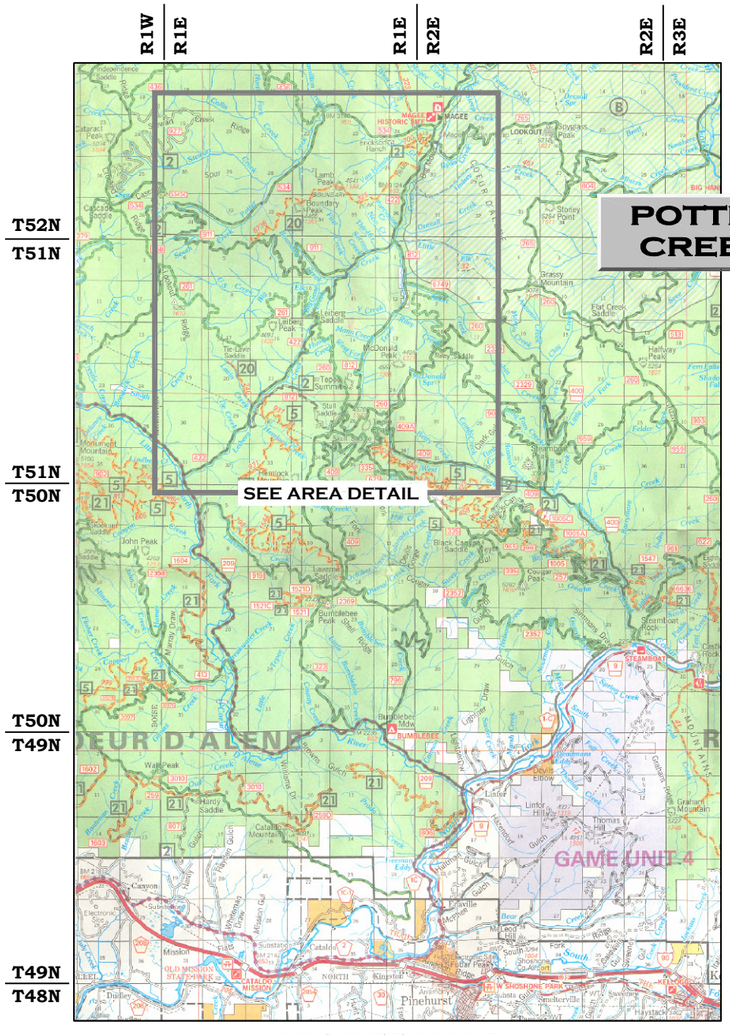
INDEX TO SHEETS

GOVERNMENT FURNISHED:

WASTE SITE

CONTRACTOR FURNISHED:

RIPRAP SOURCE
CRUSHED SURFACING
COARSE GRANULAR BACKFILL



VICINITY MAP

AREA DETAIL

APPROVED

_____ DATE _____
DISTRICT RANGER
IDAHO PANHANDLE NATIONAL FORESTS

REVIEWED:

_____ DATE _____
FOREST ENGINEER
IDAHO PANHANDLE NATIONAL FORESTS

RECOMMENDED

_____ DATE _____
PROJECT TEAM LEADER
IDAHO PANHANDLE NATIONAL FORESTS

APPROVED:

_____ DATE _____
REGIONAL ENGINEER
NORTHERN REGION

DJ&A, P.C.
CONSULTING ENGINEERS & LAND SURVEYORS
3203 RUSSELL STREET, MISSOULA, MONTANA 59801-8591
PHONE 406/721-4320 FAX 406/549-6371

DRAWING NO. R 2047

SUMMARY OF ESTIMATED QUANTITIES

BASE BID - SCHEDULE A

ITEM NO.	ITEM DESCRIPTION	MEASUREMENT		QUANTITY	PROJECT TOTAL
		METHOD	UNIT		
170(07)	CONSTRUCTION STAKING; BRIDGE PRECISION A, CENTERLINE PRECISION A, SLOPE STAKING PRECISION B	LSQ	Lump Sum	1	1
202(05)	REMOVAL OF EXISTING TIMBER BRIDGE	LSQ	Lump Sum	1	1
204(19)	SOIL EROSION AND POLLUTION CONTROL	LSQ	Lump Sum	1	1
206(07)	STRUCTURAL EXCAVATION	LSQ	Lump Sum	1	1
251(01)A	PLACED RIPRAP, CLASS 5, METHOD A, MACHINE PLACED (COMMERCIAL SOURCE)	DQ	Cubic Yard	130	130
260(01)	GEOCELL ABUTMENT STABILIZATION, 6" DEPTH	DQ	Square Yard	36	36
304(10)A	CRUSHED AGGREGATE, TYPE SURFACING, GRADING F or G, COMPACTION A (COMMERCIAL SOURCE)	DQ	Cubic Yard	42	42
553(01)	PRECAST, PRESTRESSED CONCRETE STRUCTURAL MEMBER, TRIDECK BEAM	AQ	Each	3	3
553A(01)A	PRECAST CONCRETE MEMBER, WINGWALL	AQ	Each	4	4
553A(01)B	PRECAST CONCRETE MEMBER, GRADE BEAM	AQ	Each	2	2
601(01)	MOBILIZATION	LSQ	Lump Sum	1	1
625(08)	SEEDING, DRY METHOD (WITH MULCH)	LSQ	Lump Sum	1	1
633(01)	WOOD POSTS	AQ	Lineal Foot	36	36
633(17)	OBJECT MARKERS	AQ	Each	4	4
637(01)A	LARGE DUMP TRUCK	AQ	Hour	8	8
637(02)A	HYDRAULIC EXCAVATOR WITH THUMB	AQ	Hour	8	8

DQ = Design Quantity; AQ= Actual Quantity; LSQ = Lump Sum Quantity

OPTIONAL BID ITEM NO. 1 - ARMORED FORD

ITEM NO.	ITEM DESCRIPTION	MEASUREMENT		QUANTITY	PROJECT TOTAL
		METHOD	UNIT		
203(22)	DRAINAGE EXCAVATION, TYPE ARMORED FORD	LSQ	Lump Sum	1	1
251(01)B	PLACED RIPRAP, CLASS 4, METHOD A, MACHINE PLACED (COMMERCIAL SOURCE)	DQ	Cubic Yard	45	45
304(10)B	CRUSHED AGGREGATE, TYPE SURFACING, GRADING F or G, COMPACTION A (COMMERCIAL SOURCE)	DQ	Cubic Yard	35	35

OPTIONAL BID ITEM NO. 2 - DIKE BREACH

ITEM NO.	ITEM DESCRIPTION	MEASUREMENT		QUANTITY	PROJECT TOTAL
		METHOD	UNIT		
203(23)	DIKE BREACH EXCAVATION	DQ	Cubic Yards	195	195
251(01)C	PLACED RIPRAP, CLASS 5, METHOD A, MACHINE PLACED (COMMERCIAL SOURCE)	AQ	Cubic Yard	60	60
637(01)B	LARGE DUMP TRUCK	AQ	Hour	4	4
637(02)B	HYDRAULIC EXCAVATOR WITH THUMB	AQ	Hour	12	12

GENERAL NOTES

SPECIFICATIONS: Construct the project in compliance with August 1996 FOREST SERVICE SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES and applicable special provisions.

EROSION CONTROL PLAN: Submit a soil erosion plan to the Contracting Officer and have it approved prior to beginning any work. Provide methods to minimize disturbance to the streambed and to prevent runoff from the construction site from entering directly into the stream. Construct temporary means to divert the flow of the live stream as necessary to perform work. Do not pump water from excavations directly into the live stream.

DISPOSAL: All materials designated for removal become the property of the Contractor and are to be disposed of by removing from site in an environmentally safe manner in accordance with all Local, State and Federal requirements.

TEMPORARY TRAFFIC CONTROL: Submit a Temporary Traffic Control Plan to the Contracting Officer for review prior to construction.

CONCRETE: Use Class A(AE) for all Precast, non-prestressed concrete with F'c = 5000 psi at 28 days and an entrained air content of 5% ± 1%. Finish all precast elements with a Class 2- Rubbed Finish.

Use Class "P" Prestressed concrete with strength requirements as determined by the prestressed beam fabricator, except as follows. The minimum 28-day compressive strength is 5000 psi (F'c = 5000 psi) and the minimum compressive strength at transfer of prestress force is 3500 psi (F'ci = 3500 psi). In the top two inches of the prestressed beams, use concrete with an entrained air content of 5% ±1%.

Make all concrete in accordance with an approved mix design. Chamfer all exposed edges of concrete and fillet all re-entrant angles 3/4" unless otherwise noted.

REINFORCING STEEL: Use non-prestressed reinforcing of the deformed type conforming to AASHTO M31 (ASTM A615), Grade 60. Concrete cover shall be as shown; where not shown it shall conform to AASHTO. Cut and bend steel in accordance with ACI 315.

PRESTRESSING STEEL: Use prestressing steel of 1/2" diameter, seven wire low-relaxation prestressing strand conforming to AASHTO M203, Grade 270.

Use a maximum jacking force for prestressing strand reinforcement of 0.85 f's or 35.14 kips. Maximum strand stress at transfer shall be 0.75 f's or 31.00 kips.

HARDWARE AND STRUCTURAL STEEL: Use steel shapes, plates and bars meeting the requirements of AASHTO M183 (ASTM A36). Galvanize all steel in accordance with AASHTO M111 (ASTM A123) except when covered by 1 inch or more of concrete. Use hardware meeting the requirements of ASTM A307 except as noted. Galvanize hardware in accordance with AASHTO M232 (ASTM A153) unless covered by 1 inch or more of concrete.

Weld in accordance with the Bridge Welding Code, AWS D1.5 with E70XX electrodes.

INSTALLATION OF PRESTRESSED BEAMS: Galvanized steel shims may be used where necessary to ensure that no more than 1/8" vertical variation exists between adjacent beam flanges at the centerline of bearing. Make the galvanized steel shims the same size as the elastomeric bearing pads and place shims between the beams and the pads.

ROAD CONSTRUCTION: Finish the roadbed to construction tolerance Class A, as specified in Table 203.1 of the Standard Specifications.

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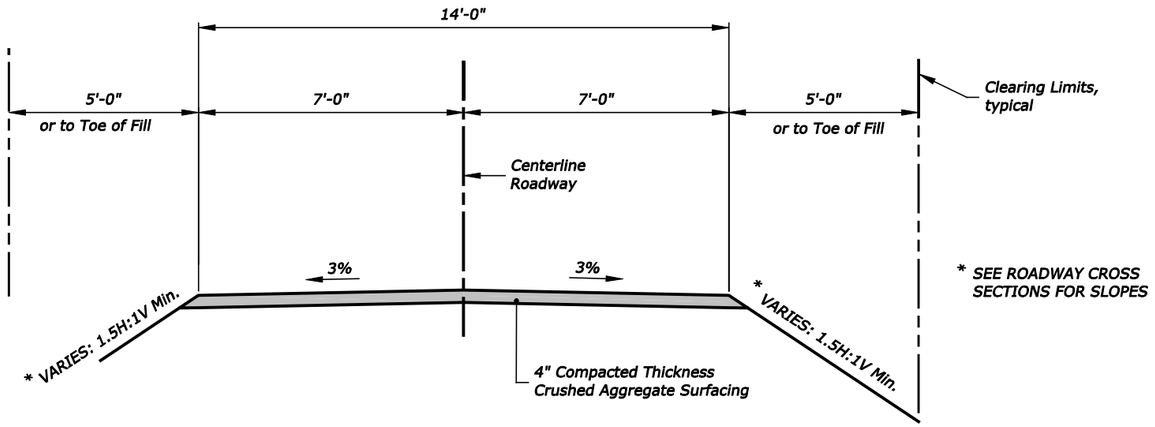
No.	Date	Revision	By	Apvd.

Drawn CT
Design CT
Checked MTJ
Reviewed VA
Project No. 5387

POTTER CREEK BRIDGE NO. 534-15.7

SUMMARY OF QUANTITIES AND GENERAL NOTES

Date: SEP 08
Sheet 2 of 15



TYPICAL SECTION

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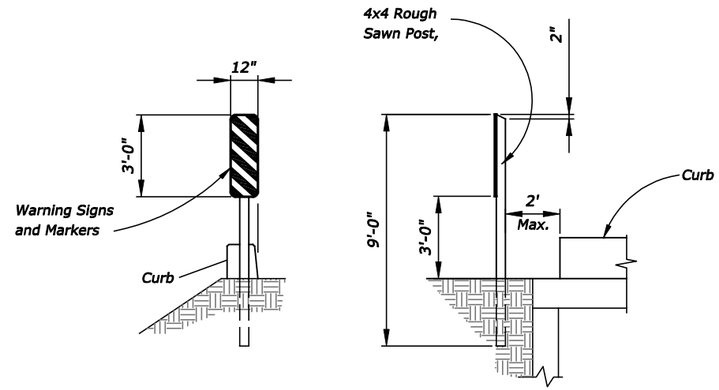

OBJECT MARKERS: Use 12"x 36" Type 3 object markers colored yellow and black. Use material meeting MUTCD OM-3L or OM-3R specifications. Fasten to post w/ (2) 1/4" Ø machine bolts w/ washers. Field drill bolt holes. Install posts such that the inside edge of the reflectorized panel is on line with the inside edge of the curb.

Use Treated Timber Posts made of Coastal Region Douglas Fir No. 2 Grade or better treated in accordance with AWPA U1 using pentachlorophenol meeting AWPA P8 using AWPA P9 Type A solvent.

OBJECT MARKER TYPE 3 TYPICAL INSTALLATION

Not to Scale

ROAD CENTERLINE & LAYOUT POINT COORD. TABLE

Point	Northing	Easting	Elevation	Description	
7051	5179.4152	5336.6742	Match	STA 0+30	
7052	5159.7693	5290.6956	3991.80	STA 0+80	
7053	5153.4826	5275.9824	3991.80	STA 0+96	
7054	5135.1810	5229.4293	3993.30	STA 1+46	
7000	5097.3832	5132.5620	3995.52	STA 2+50	
7001	5090.1131	5113.9301	3996.08	STA 2+70	
7002	5082.8429	5095.2983	3996.86	STA 2+90	
7003	5075.5728	5076.6665	3997.86	STA 3+10	
7004	5068.3026	5058.0347	3999.00	STA 3+30	
7005	5061.1492	5039.3580	3999.87	STA 3+50	
7006	5054.3393	5020.5533	4000.41	STA 3+70	
7007	5050.1325	5008.7824	4000.50	STA 3+82.50 Abut. 1	
7008	5029.9400	4952.2823	4000.50	STA 4+42.50 Abut. 2	
7009	5027.4159	4945.2198	4000.50	STA 4+50	
7010	5020.6850	4926.3864	4000.20	STA 4+70	
7011	5013.9542	4907.5531	3999.90	STA 4+90	
7012	5007.2234	4888.7197	3999.63	STA 5+10	
7013	5000.3825	4869.9263	3999.53	STA 5+30	
7014	4993.3898	4851.1886	3999.58	STA 5+50	
7015	5064.8892	5011.4731	3995.15	Foundation Layout Abut. 1	1/
7016	5035.3758	5006.0917	3995.15	Foundation Layout Abut. 1	
7017	5044.6967	4954.9730	3995.15	Foundation Layout Abut. 2	
7018	5015.1833	4949.5916	3995.15	Foundation Layout Abut. 2	

1/ *Abutment layout points are at each end of the grade beam along centerline bearing. Elevations are bottom of grade beam.*

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POTTER CREEK BRIDGE NO. 534-15.7

ROADWAY TYPICAL SECTION AND DETAILS

Date: APR 09
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SURVEY CONTROL COORDINATES

Number	Northing	Easting	Elevation	Description
CP-1	4958.8055	4788.0726	4000.00	DJ&A Red Plastic Cap
CP-2	5000.0000	5000.0000	4000.00	NAIL
CP-3	5106.3785	5129.7534	3994.52	DJ&A Red Plastic Cap
CP-4	5045.9882	4967.0254	4000.36	NAIL

OPTIONAL BID ITEM 1
Construct Armored Ford from
Sta. 0+30 to Sta. 1+46
See Sheet 5 for Details

OPTIONAL BID ITEM 2
Construct Breach in existing Dike.
See Sheets 7 & 8 for Details

CURVE DATA
R = 1000'
Δ = 1°38'58"
L = 28.79'
PC = 3+34.18
PT = 3+62.97

CURVE DATA
R = 1000'
Δ = 0°47'55"
L = 13.94'
PC = 5+14.63
PT = 5+28.57

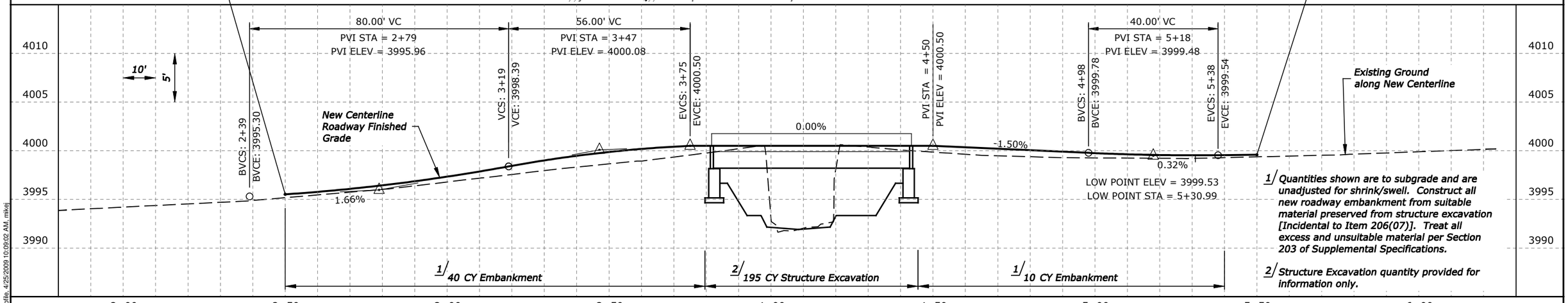
0 20 40
SCALE IN FEET

Existing Edge of Road
Centerline Road
Existing 18"Ø Steel Culvert
(leave in place)
Soil Test
Pit Location
Existing Timber Bridge
(remove & dispose)
New Edge of Road
Existing Edge of Road
Soil Test
Pit Location
CP-1
CP-2
CP-3
CP-4
7'
7'
2+00
3+00
4+00
5+00
6+00
3995
3994
3993
4000
3996
POTTER CREEK

STA 2+50
BEGIN ROAD WORK
MATCH EXISTING

STA 5+50
END ROAD WORK
MATCH EXISTING

PLAN



1/ Quantities shown are to subgrade and are unadjusted for shrink/swell. Construct all new roadway embankment from suitable material preserved from structure excavation [Incidental to Item 206(07)]. Treat all excess and unsuitable material per Section 203 of Supplemental Specifications.

2/ Structure Excavation quantity provided for information only.

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POTTER CREEK BRIDGE NO. 534-15.7

ROAD PLAN & PROFILE

Date: SEP 08
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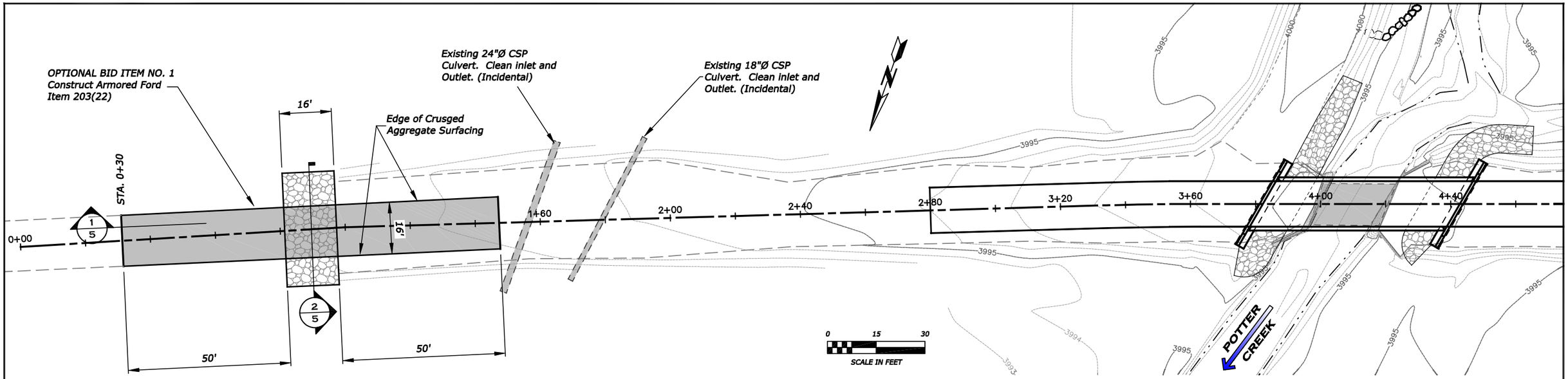
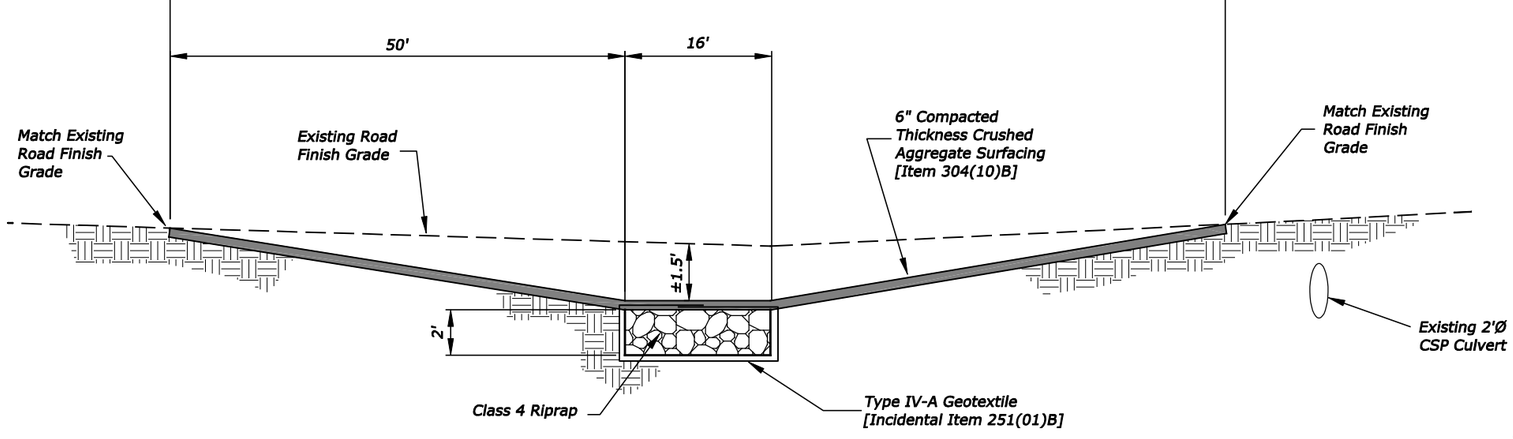


PLAN



1/5 **SECTION**
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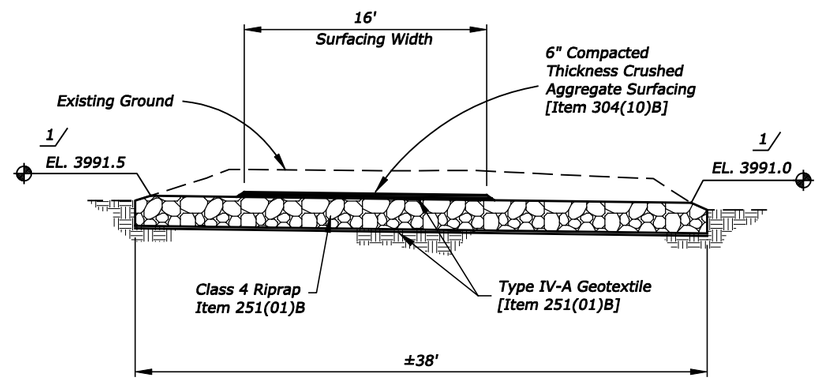

1/ Field Verify prior to construction. Top of riprap should be placed 0.2' above toe of the road fill.

2/5 **SECTION**
NOT TO SCALE

* ESTIMATED QUANTITY		
ITEM	DESCRIPTION	QUANTITY
251(01)B	TYPE IV–A GEOTEXTILE	120 S.Y.

* FOR INFORMATIONAL PURPOSES ONLY– DO NOT USE FOR BIDDING
SEE BID LIST– INCIDENTAL TO ITEM 251(01)B

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OPTIONAL BID ITEM 1
ARMORED FORD

Date: SEP 08
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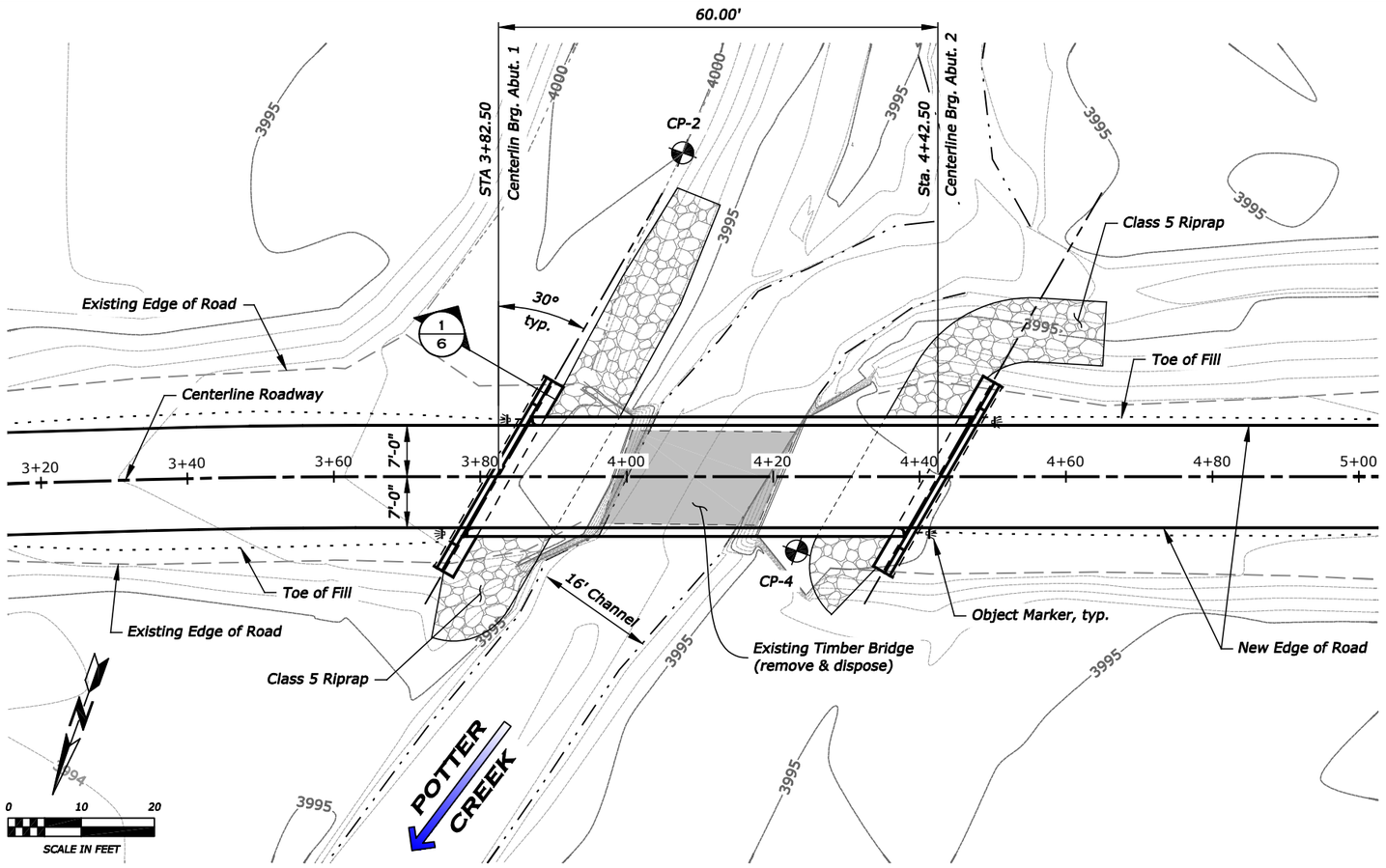
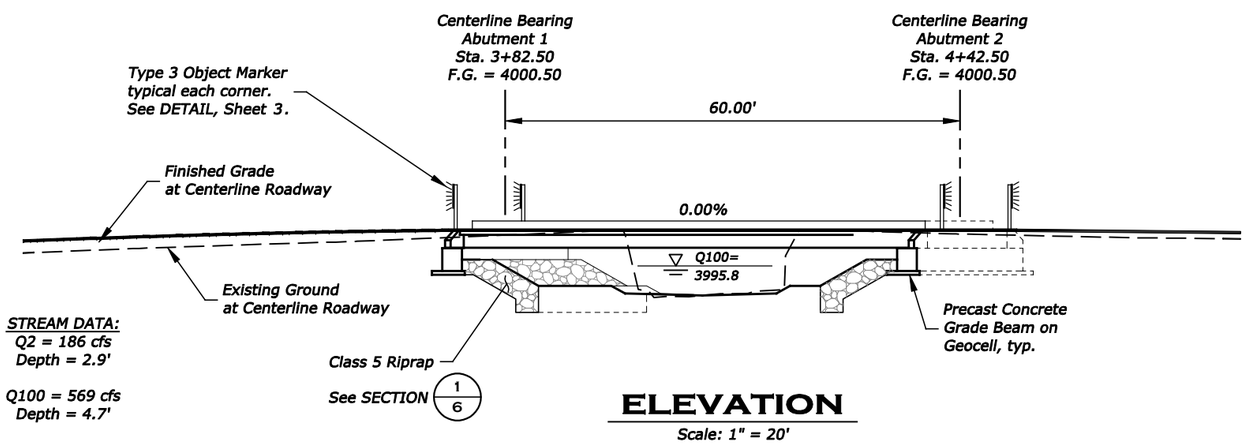


PLAN



STREAM DATA:
Q2 = 186 cfs
Depth = 2.9'

Q100 = 569 cfs
Depth = 4.7'

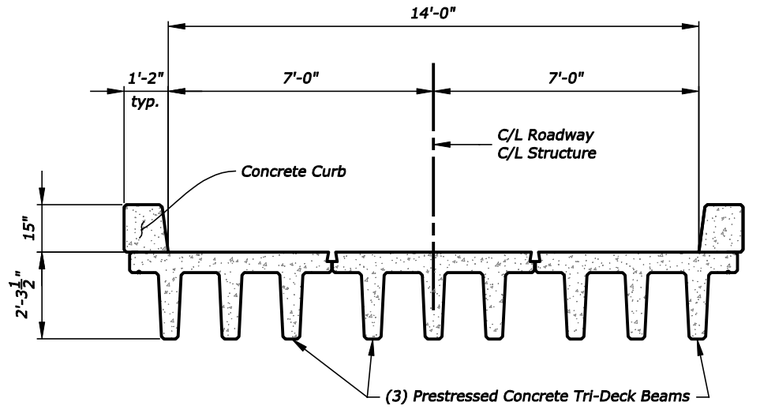
ELEVATION

Scale: 1" = 20'

DESIGN NOTES:

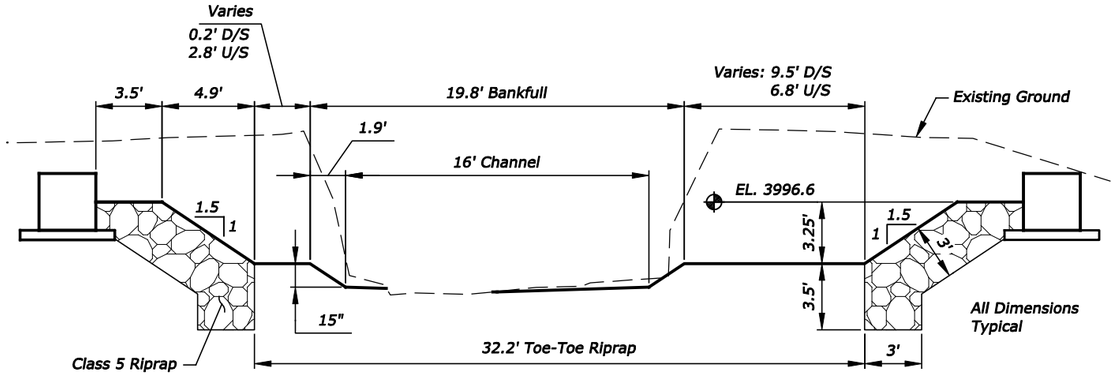
BRIDGE DESIGN: This structure is designed for HS 20-44 loading in accordance with AASHTO Standard Specifications for Highway Bridges, 17th edition, 2002.

HYDROLOGY AND HYDRAULICS: This structure is designed to pass a 100-year frequency flood with a stage elevation at 3995.8 (Freeboard is 2.4' at upstream edge of bridge).



TYPICAL SECTION

Scale: 1/4" = 1'-0"



1/6 **SECTION**

Scale: 1-1/2" = 1'-0"

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BRIDGE GENERAL LAYOUT

Date: SEP 08

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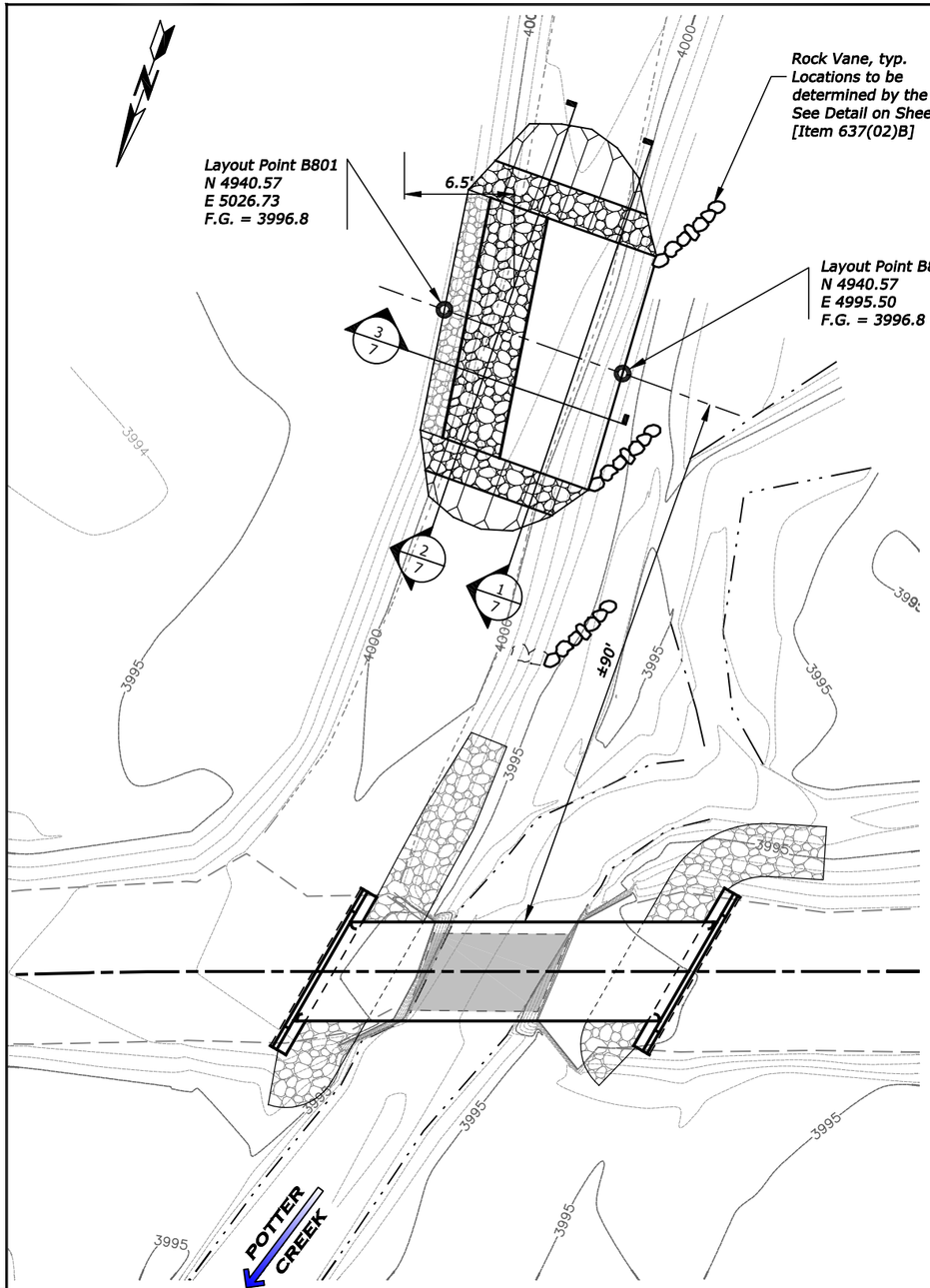
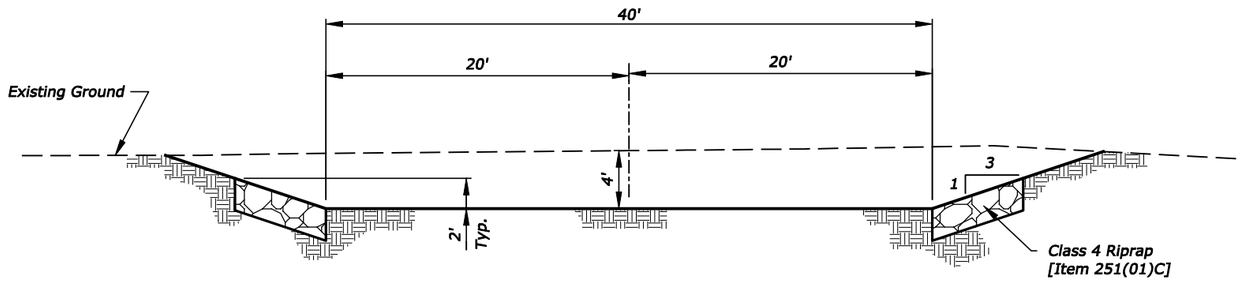


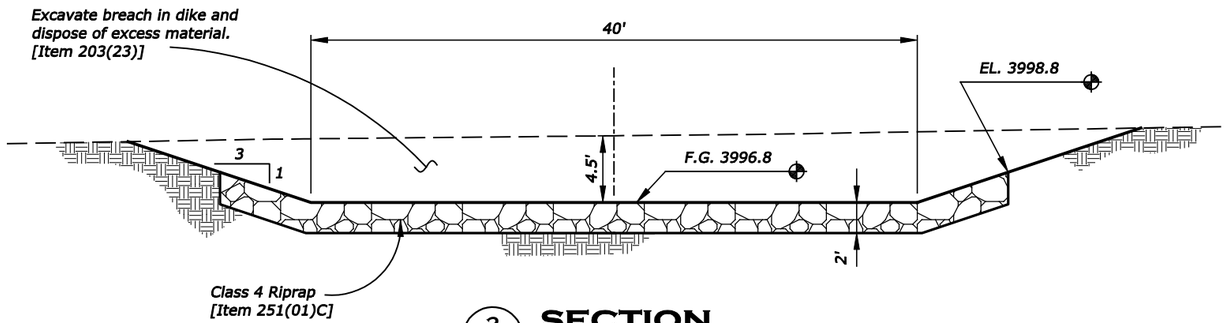
PLAN

NOT TO SCALE



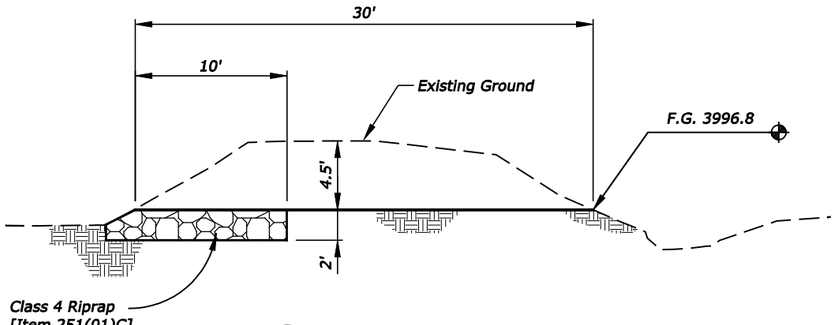
1/7 SECTION

Scale: 1-1/2" = 1'-0"



2/7 SECTION

Scale: 1-1/2" = 1'-0"



3/7 SECTION

Scale: 1-1/2" = 1'-0"

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OPTIONAL BID ITEM 2 DIKE BREACH

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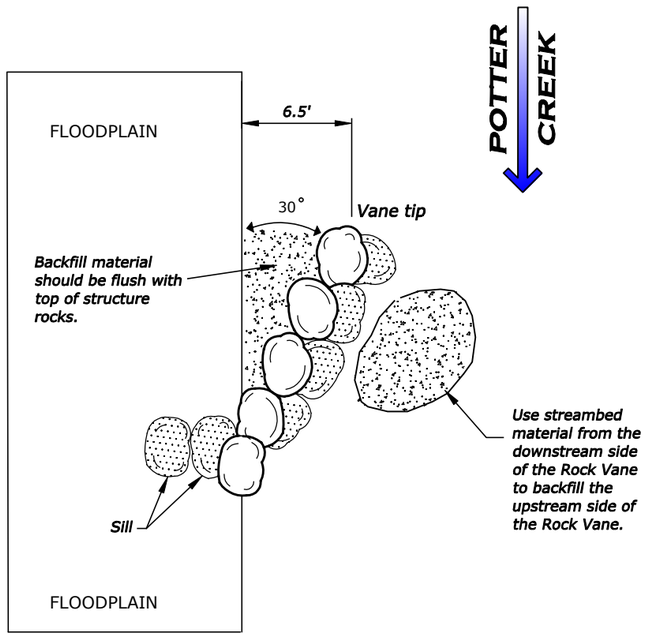
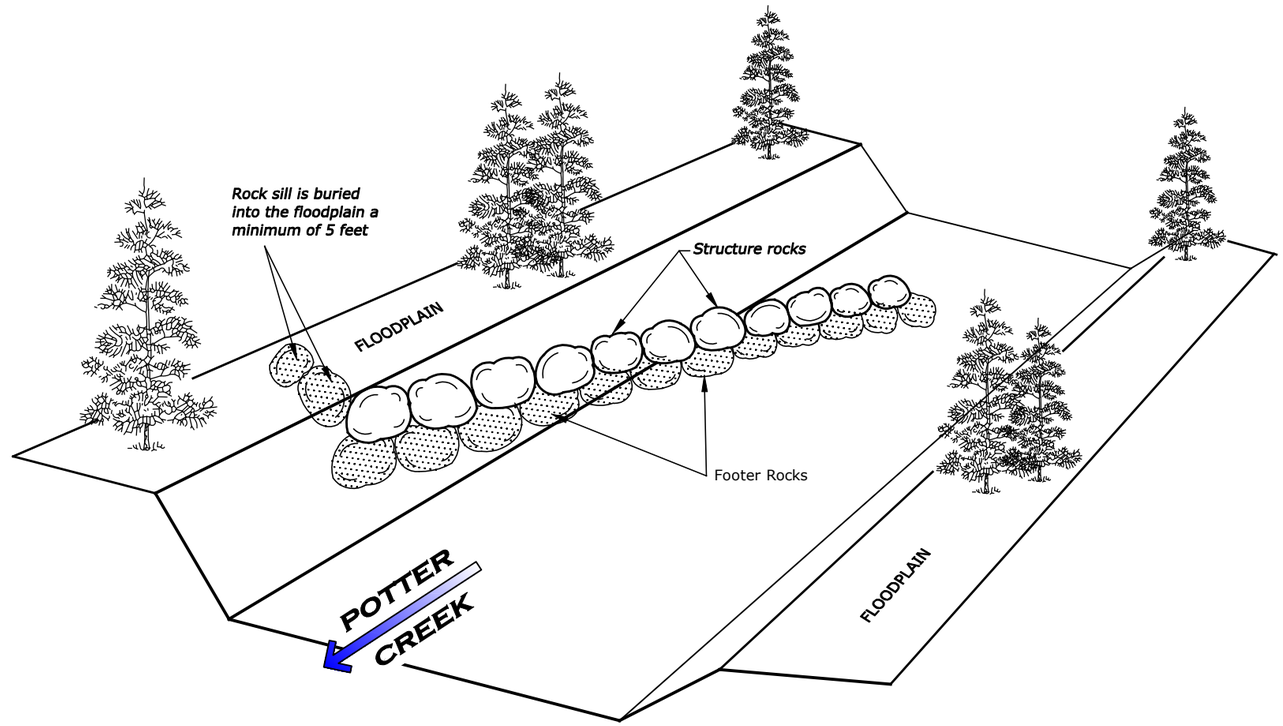


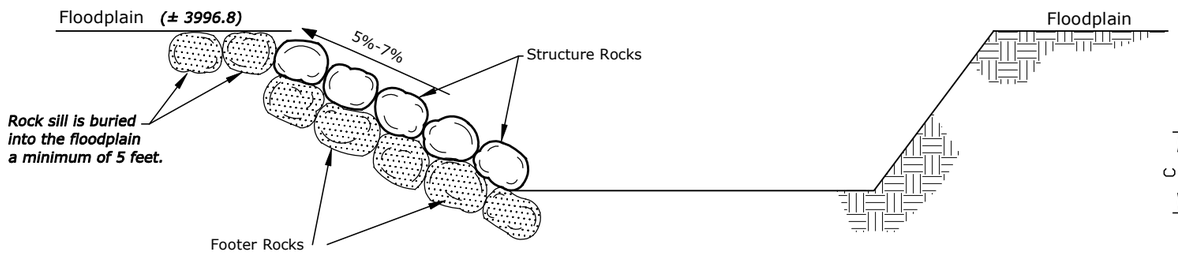
PLAN

NOT TO SCALE



PERSPECTIVE VIEW

NOT TO SCALE



CROSS SECTION

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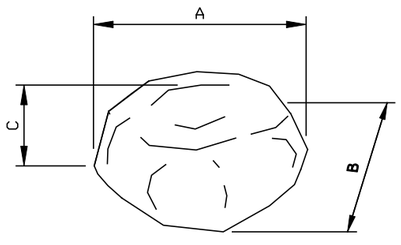

A = Longest Axis (Length)
Min. Length = 24"

B = Intermediate Axis (Width)
Min. Width = 24"

C = Shortest Axis (Thickness)
Min. Thickness = 24"

ROCK SIZE

NO SCALE

ROCK VANE NOTES:

1. The Structure Rocks rest on the Footer Rocks and overlap 1/3 to 1/2 of the footer rocks on the upstream side of the footer rocks. The vane rises at a 5% - 7% slope from the tip. A 30 degree angle exists between the bank and the vane portion of the structure and no gaps exist between the rocks. The vane occupies 1/3 of the channel width. The sill is buried into the floodplain a minimum of 5 feet. To prevent water from flowing under the structure, backfill the upstream side of the Rock Vane with streambed material. Material should be flush with the top of Footer Rocks. After the structure is installed, slope the stream bank to match the adjacent bank.

2. Rock size shall be the approximate size shown on the drawings and the minimum width and thickness shall be 2 feet by 2 feet through the entire rock length. Rocks shall meet the durability requirements or other requirements of the Standard Specification 705. Rock will be available on site or taken from the quantity shown for Class 5 riprap, Item 251(01)C.

3. Rock Vanes are to be paid for by Equipment Rental, Item 637(02)B. Locations shown on Sheet 7 are approximate, exact locations to be determined by the CO.

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Project No.	5387

POTTER CREEK BRIDGE
NO. 534-15.7

OPTIONAL BID ITEM 2
ROCK VANE DETAILS

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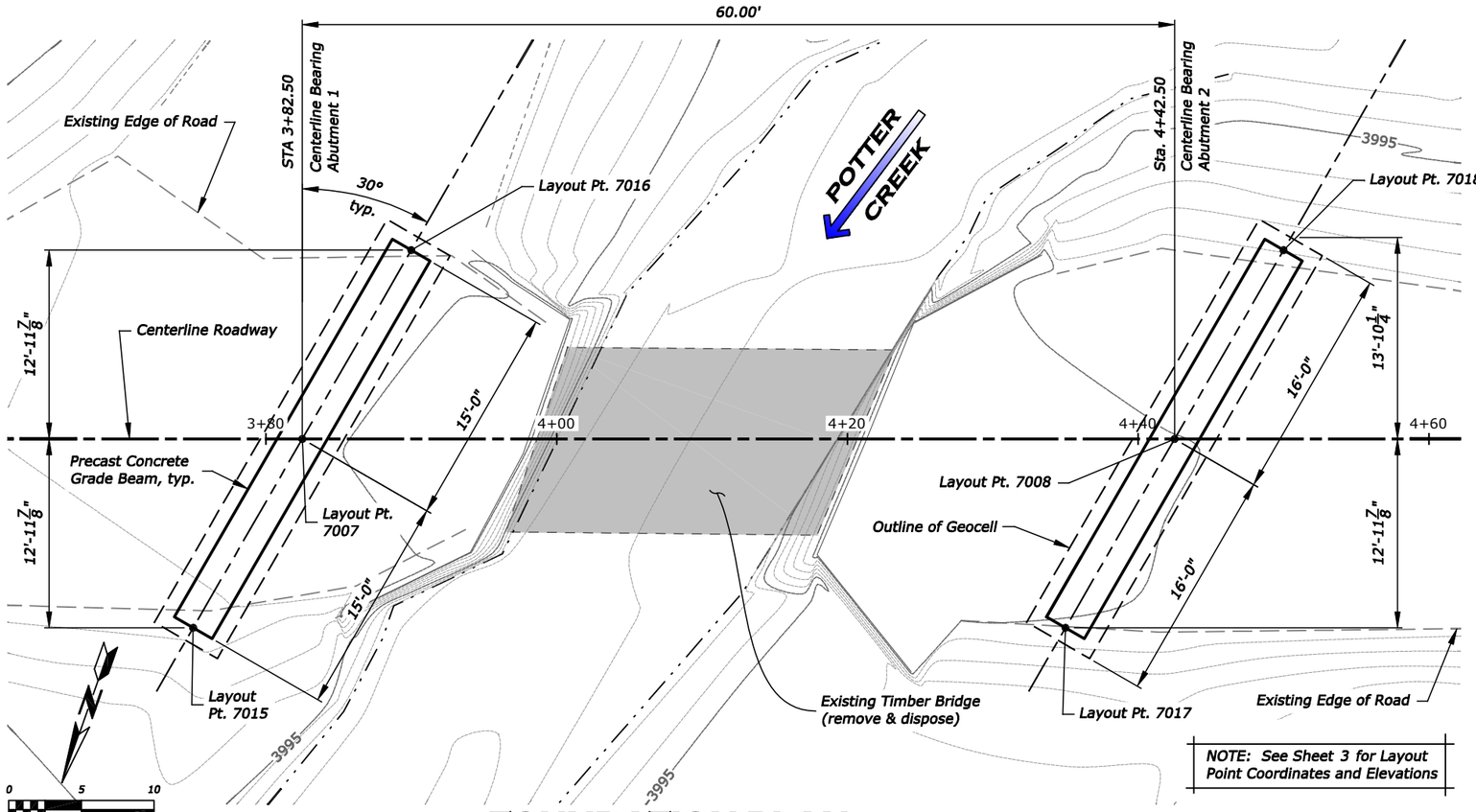
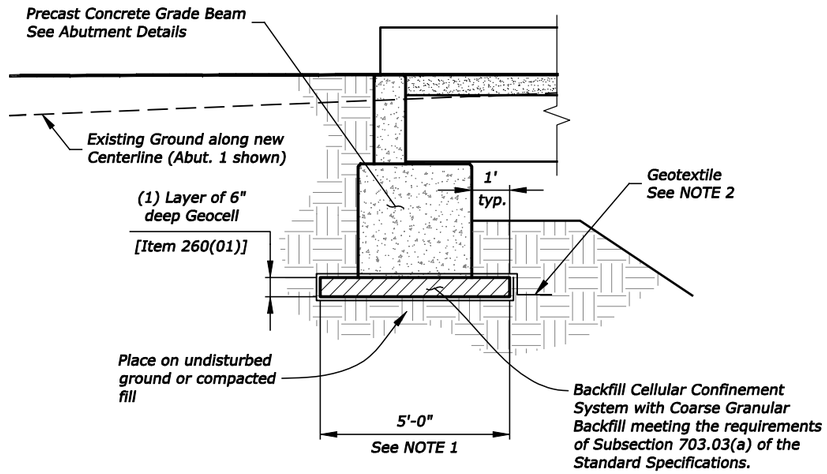


FOUNDATION PLAN



TYPICAL SECTION

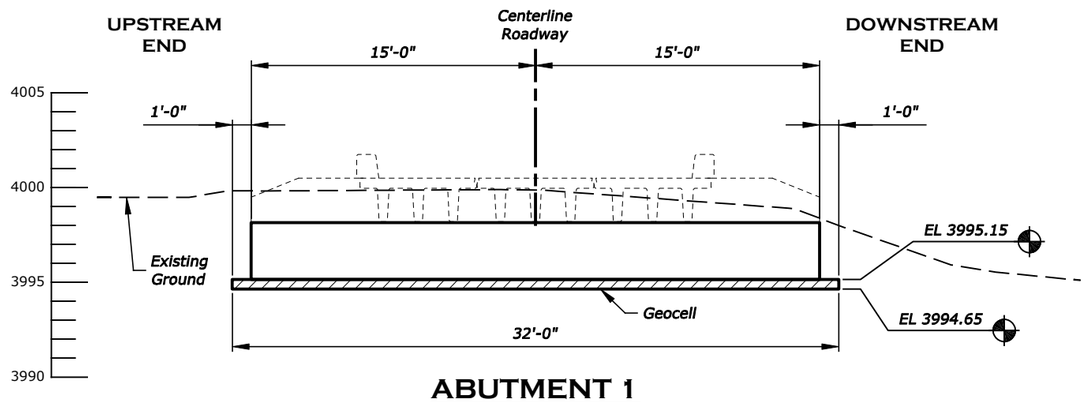
Scale: 1/4" = 1'

NOTES:

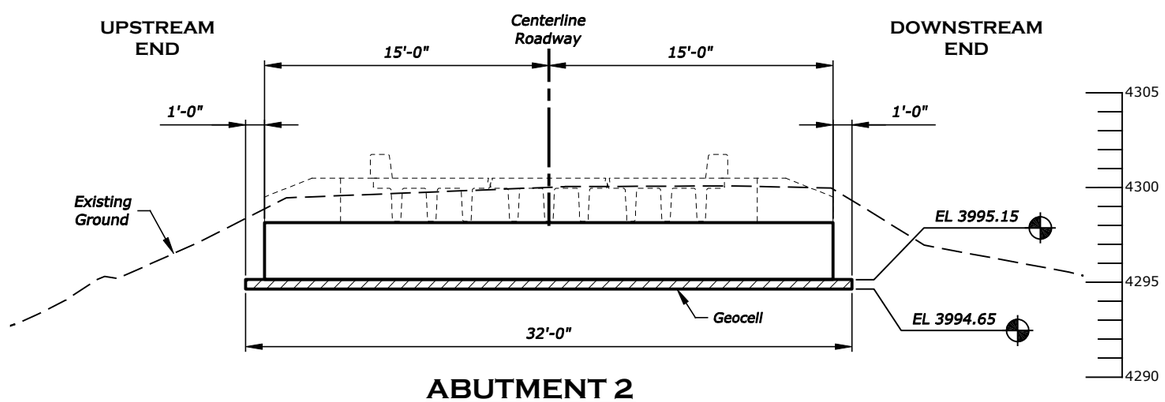
1. Field cut Geocell per Manufacturer's specifications to width shown.
2. Place Type IV-A Geotextile under Geocell and wrap over top after backfilling. Incidental to Item 260(01).

*ESTIMATED QUANTITY		
ITEM	DESCRIPTION	QUANTITY
260(01)	COARSE GRANULAR BACKFILL	6.0 C.Y.
260(01)	TYPE IV–A GEOTEXTILE	90 S.Y.

* FOR INFORMATIONAL PURPOSES ONLY– DO NOT USE FOR BIDDING SEE BID LIST– INCIDENTAL TO ITEM 260(01)



ABUTMENT 1



ABUTMENT 2

SECTIONS ALONG CENTERLINE BEARING (LOOKING AHEAD ON-LINE)

Section Parallel to Abutment
Scale: 1-1/2" = 1'-0"

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Coeur d'Alene, ID 83814

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Design CT
Checked MTJ
Reviewed VA
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POTTER CREEK BRIDGE NO. 534-15.7

FOUNDATION PLAN

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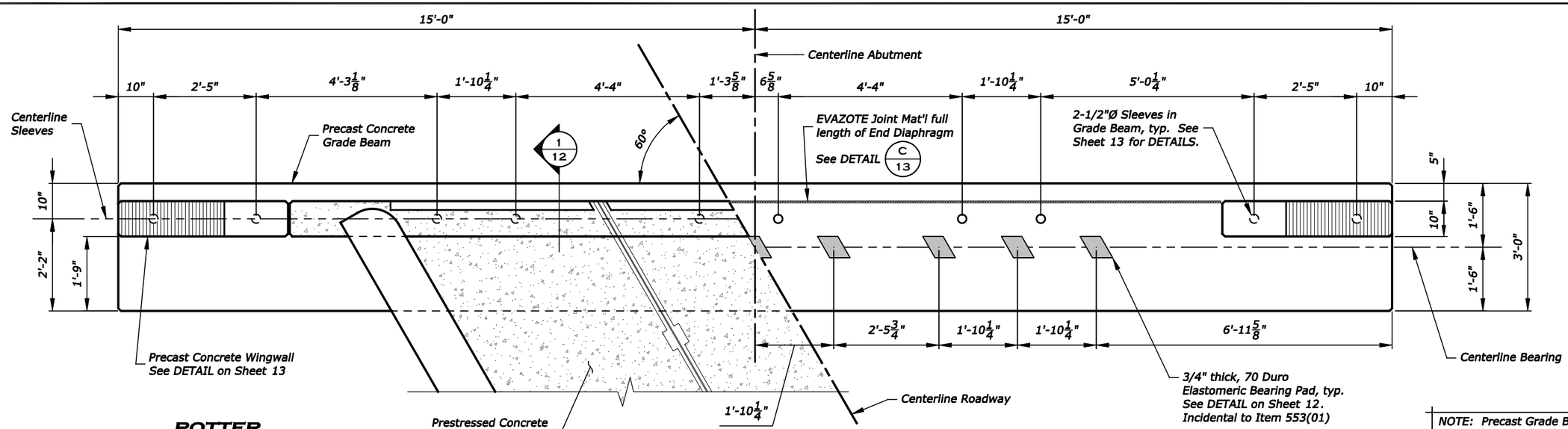
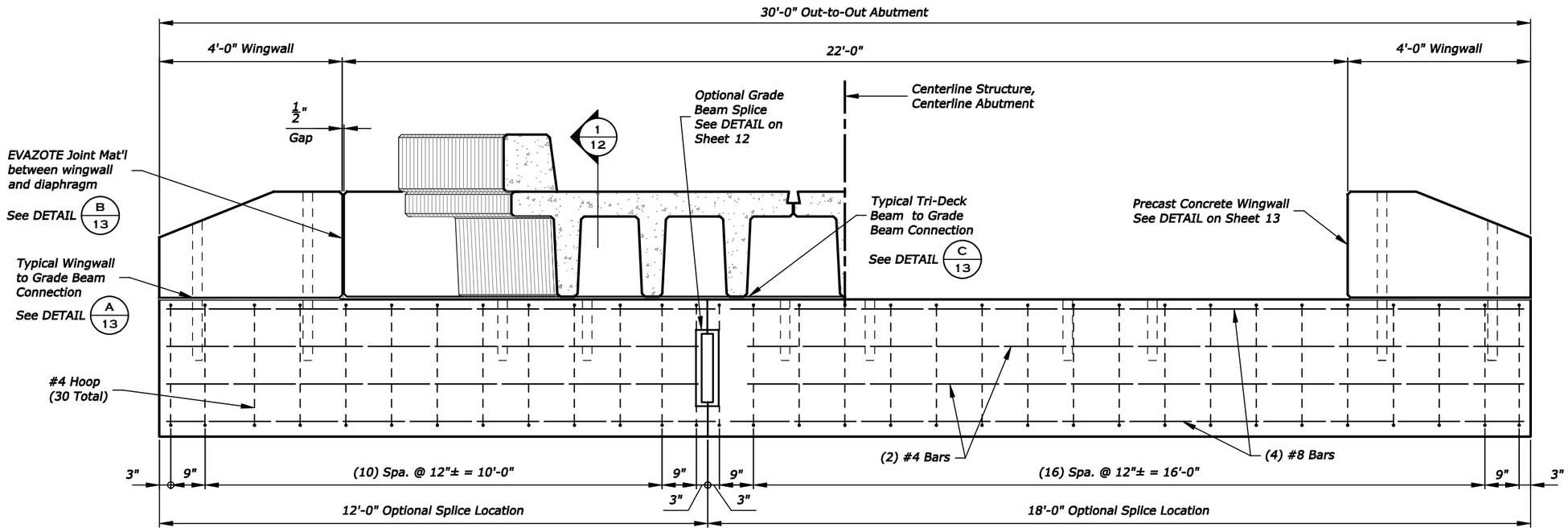


POTTER CREEK

ABUTMENT PLAN

Scale: 3/8" = 1'-0"

NOTE: Precast Grade Beams and Wingwalls must be cast and supplied by the same manufacturer that fabricates the Prestressed Tri-Deck Beams.



ABUTMENT ELEVATION

Scale: 3/8" = 1'-0"

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POTTER CREEK BRIDGE NO. 534-15.7

ABUTMENT 1 PLAN & ELEVATION

Date: SEP 08
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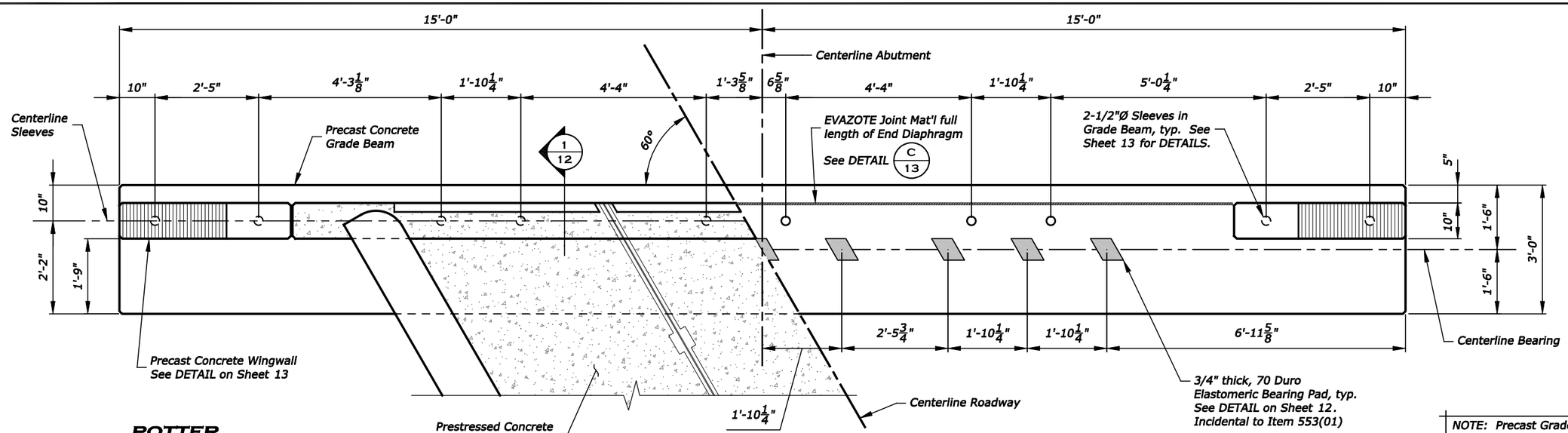
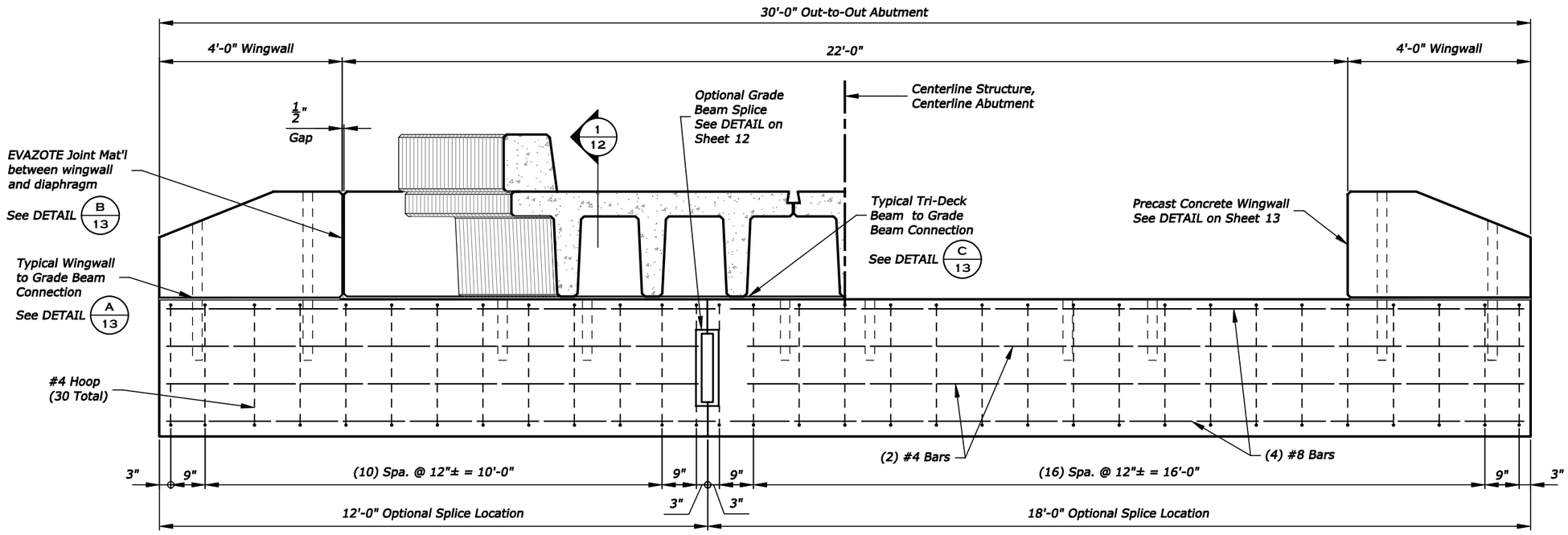


POTTER CREEK

ABUTMENT PLAN

Scale: 3/8" = 1'-0"

NOTE: Precast Grade Beams and Wingwalls must be cast and supplied by the same manufacturer that fabricates the Prestressed Tri-Deck Beams.



ABUTMENT ELEVATION

Scale: 3/8" = 1'-0"

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POTTER CREEK BRIDGE NO. 534-15.7

ABUTMENT 2 PLAN & ELEVATION

Date: SEP 08
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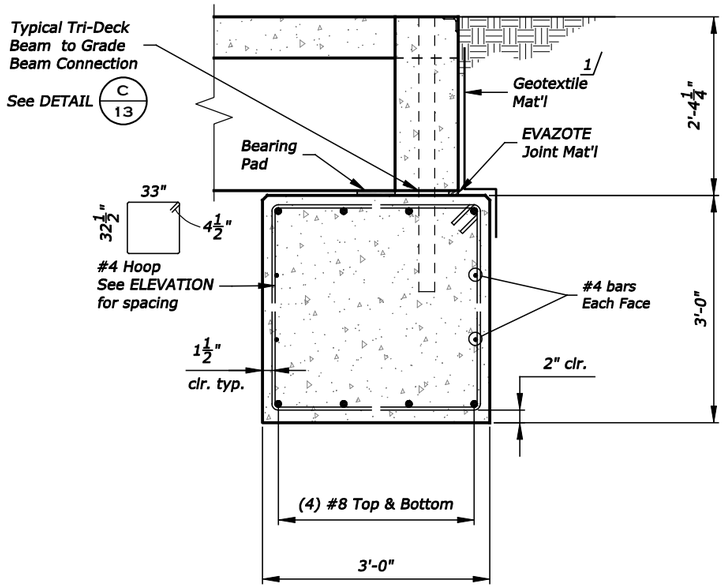
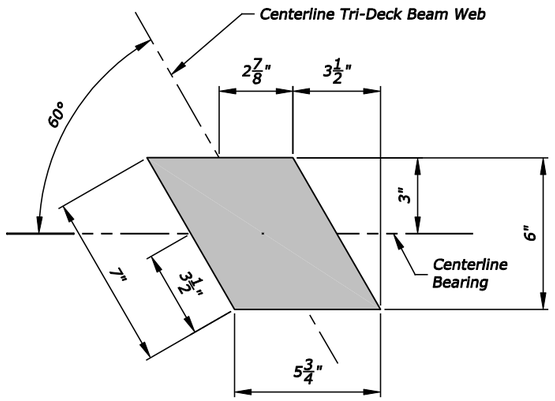
1/ Use Type II-A Geotextile Material full width of bridge. Incidental to Item 553(01)



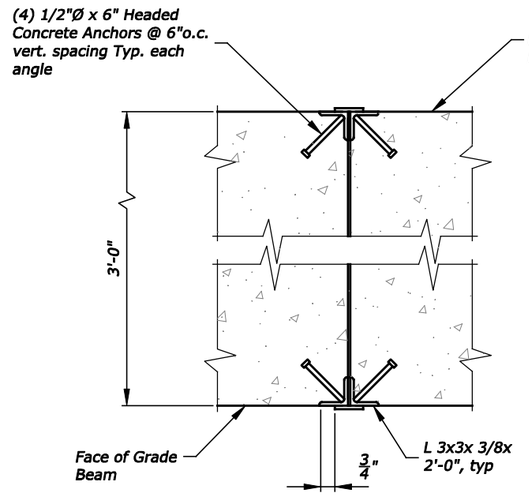
1/12 SECTION

Scale: 1/2" = 1'-0"

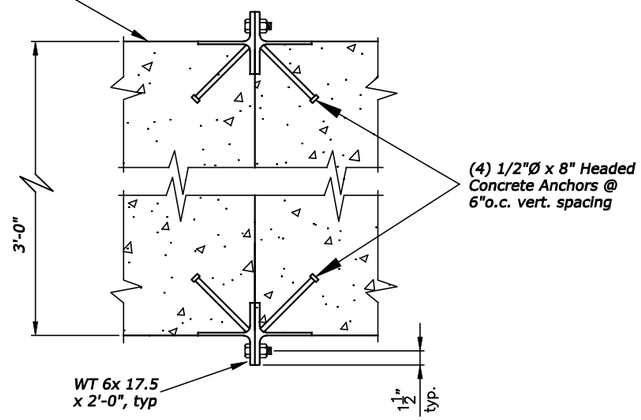


BEARING PAD DETAIL

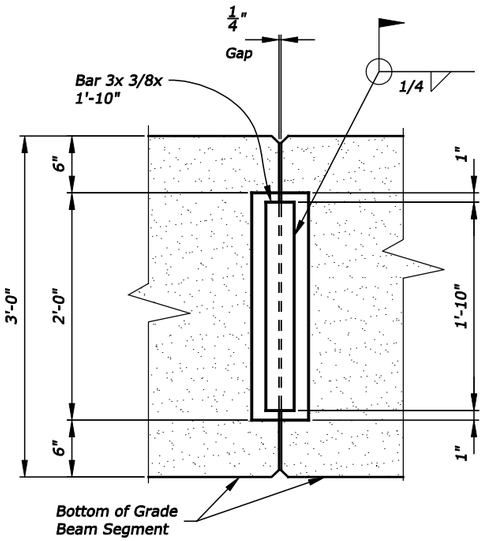
Not to Scale



PLAN SECTION

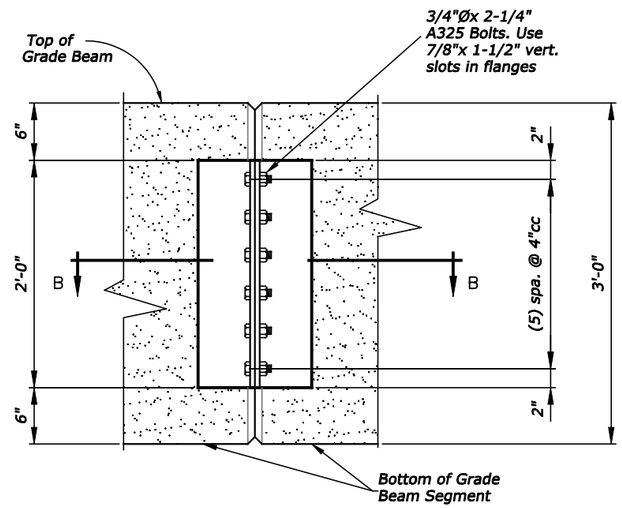


PLAN SECTION B-B



ELEVATION

FIELD WELD ALTERNATE



ELEVATION

FIELD BOLT ALTERNATE

OPTIONAL GRADE BEAM SPLICE DETAIL

Scale: 3/4" = 1'-0"

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ABUTMENT DETAILS

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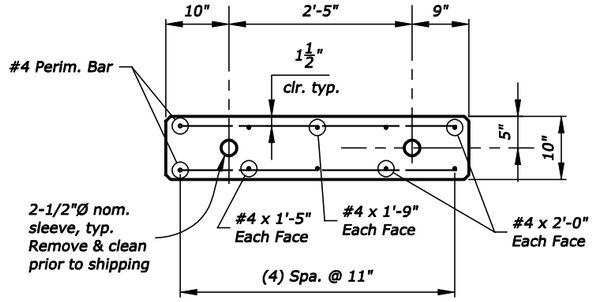
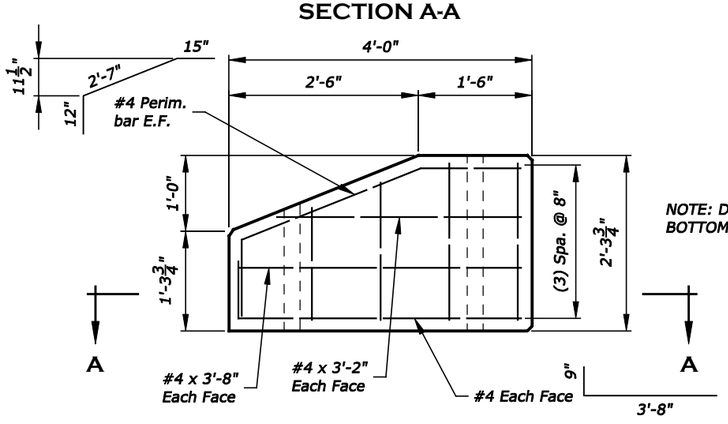


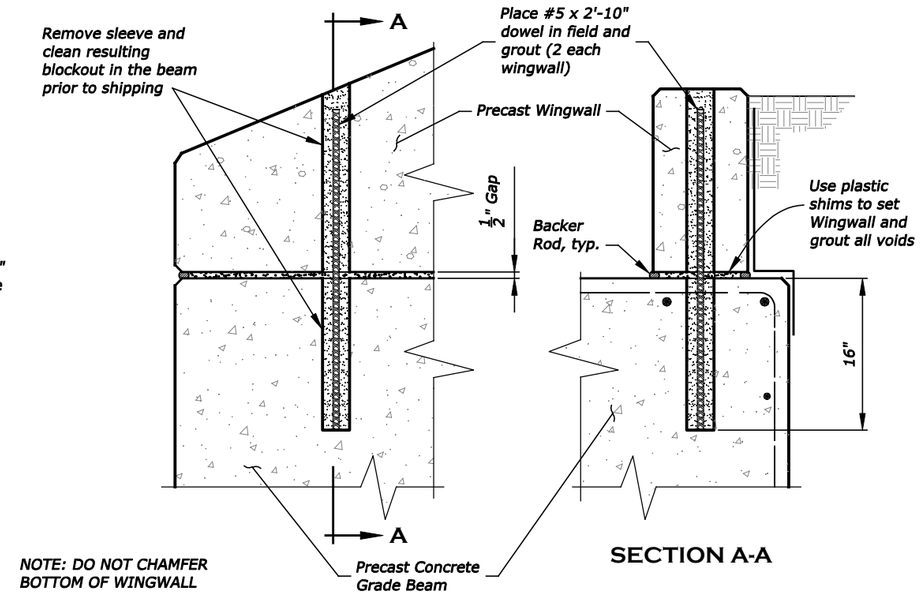
SECTION A-A



ELEVATION

WINGWALL DETAILS

Scale: 3/8" = 1'-0"

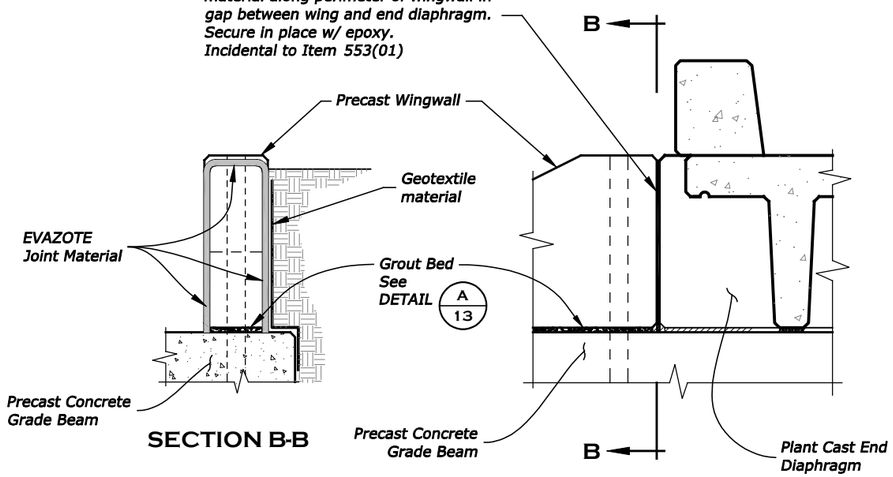


SECTION A-A

NOTE: DO NOT CHAMFER BOTTOM OF WINGWALL

A/13 **DETAIL**

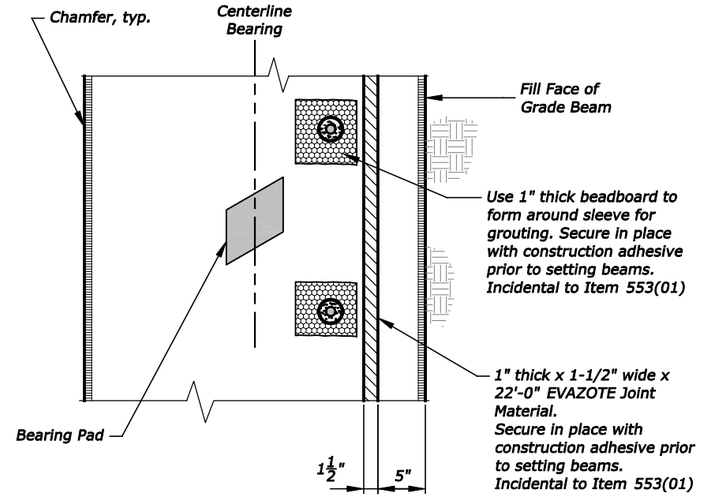
Scale: 3/4" = 1'-0"



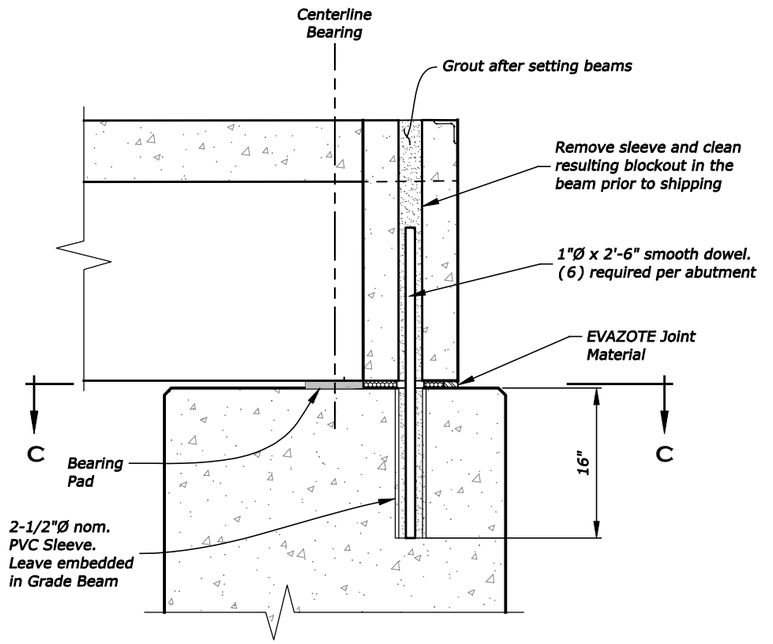
SECTION B-B

B/13 **DETAIL**

Scale: 3/4" = 1'-0"



SECTION C-C



C/13 **DETAIL**

Scale: 3/4" = 1'-0"

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POTTER CREEK BRIDGE NO. 534-15.7

ABUTMENT DETAILS

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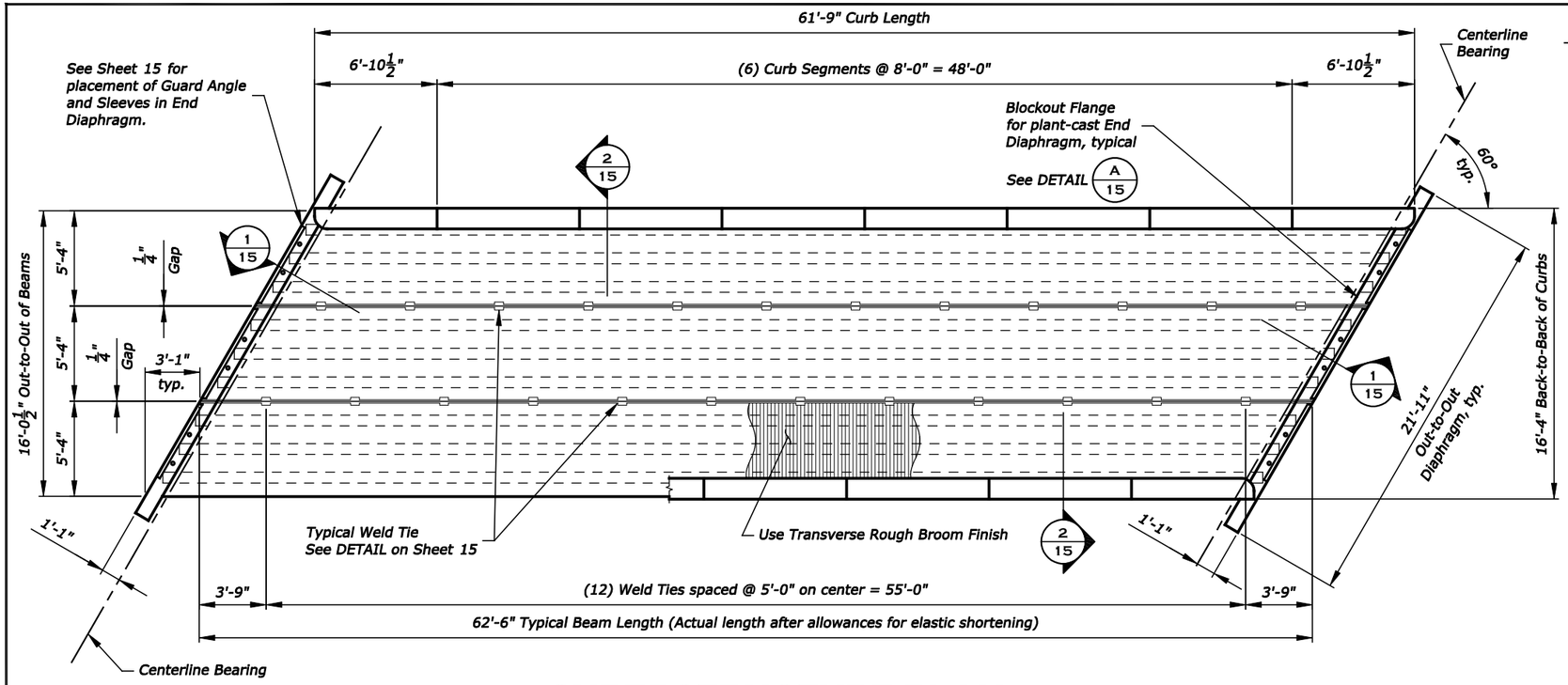
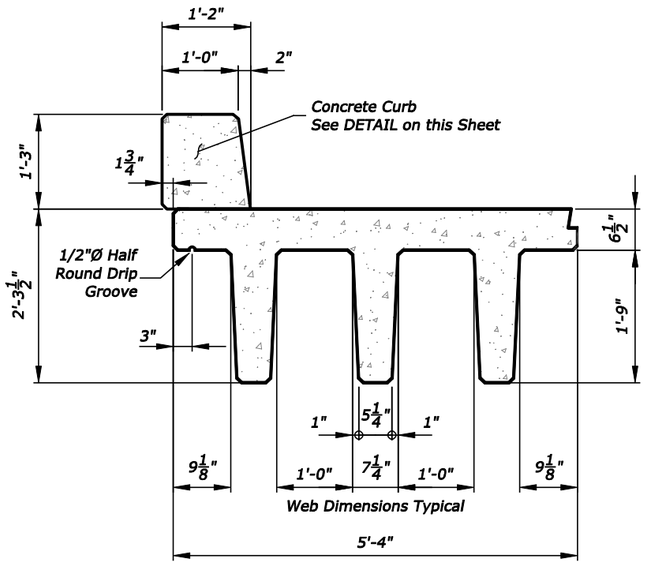


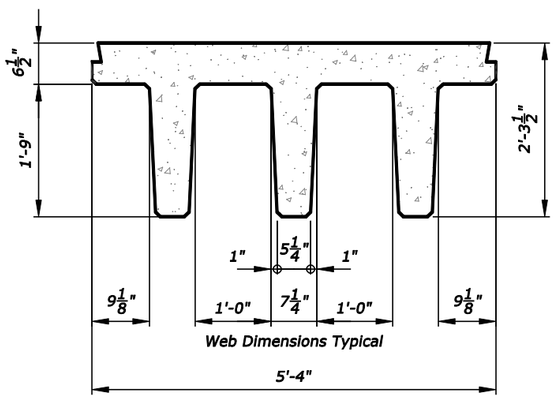
SUPERSTRUCTURE PLAN

Scale: 3/16" = 1'-0"



TYPICAL EXTERIOR BEAM

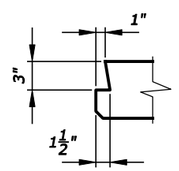
Scale: 1/2" = 1'-0"



INTERIOR BEAM

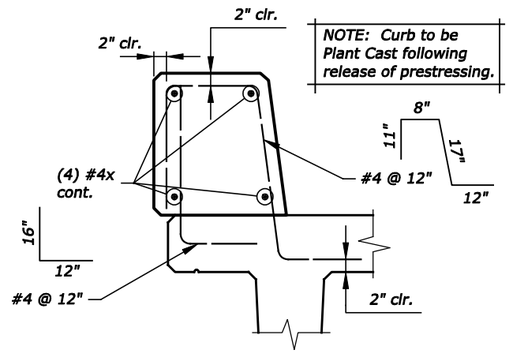
Scale: 1/2" = 1'-0"

NOTE: Beam fabricator may submit alternate grout key detail for approval.



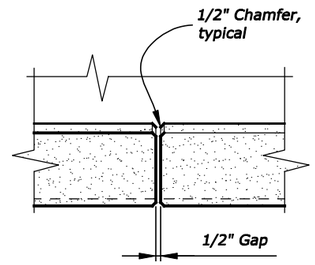
GROUT KEY

Not to Scale



CURB REINFORCING

Not to Scale



CURB JOINT

Not to Scale

PRESTRESSED BEAM NOTES

PRESTRESSED CONCRETE BEAM DESIGN: Pretensioning is the only acceptable method of prestressing for this project.

The prestress fabricator shall provide the final design for all prestressed reinforcement and non-prestressed reinforcement in the section shown on this sheet. The design shall verify that allowable stress and ultimate strength requirements are met at all stages of construction. The final design shall be prepared by a Professional Engineer licensed in IDAHO whose signed seal shall be on the design documents. Submit calculations and shop drawings detailing the methods, materials, and equipment (including items noted in Section 553 of the Standard Specifications) proposed for use in the prestressing operation at least 30 days prior to casting any members. See General Notes on Sheet 2 for additional design and material specifications.

An alternate section of precast, prestressed concrete only may be proposed. The proposed alternate section may deviate 3" maximum in height and overall width must provide a minimum 14 ft. clear opening between curbs. The finish grade elevation shall be maintained with adjustment made in the Grade Beam elevation. The alternate section must provide a minimum of 2.4' foot freeboard above the 100 year flood elevation shown on these Plans. The Contractor is responsible for revisions required in the end diaphragm reinforcement, connection to substructure, etc. (Note- Beams must be fabricated with an integral end diaphragm). These revisions shall be submitted with the beam design as noted below.

Designs shall conform to Standard Specifications for Highway Bridges, 17th Edition, 2002. Design notes as follows:

1. *HS20-44 Live Load with Impact = 27%*
2. *Load Fraction as per AASHTO 3.23.4.*
3. *Total loss of prestress may be assumed to be 45 KSI*
4. *Superimposed dead load is 35 PSF for a future wearing surface. Superimposed dead load assumed to be equally distributed to the three beams in the section shown.*
5. *1/2" of top flange shall be deducted to account for traffic wear in allowable stress checks at service after losses have occurred, beam web reinforcement design, and flexural strength determination.*
6. *Tension in precompressed tensile zone at service after losses have occurred is NOT allowed.*

FINISHING CONCRETE: Finish beams in accordance with the specifications except a concrete gray epoxy mortar using AASHTO M235 Class II Epoxy Resin Adhesive may be used instead of the specified sand-cement mortar to reduce curing time. Rub the epoxy mortar with cement prior to hardening. Finish the beam ends so that all holes or acceptable rock pockets are patched and the strands are cut off flush or burned back.

PAINTING OF WELD TIE CONNECTIONS AND GUARD ANGLES: Galvanize or paint guard angles or weld ties not covered by 1 inch or more of concrete. If painting, use one primer coat and two field coats of aluminum paint conforming to AASHTO M69, Type II.

INSTALLATION OF PRESTRESSED BEAMS: Galvanized steel shims may be used where necessary to ensure that no more than 1/8" vertical variation exists between adjacent beam flanges at the centerline of bearing. Make the galvanized steel shims the same size as the elastomeric bearing pads and place shims between the beams and the pads.

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NO. 534-15.7

SUPERSTRUCTURE PLAN

Date: SEP 08
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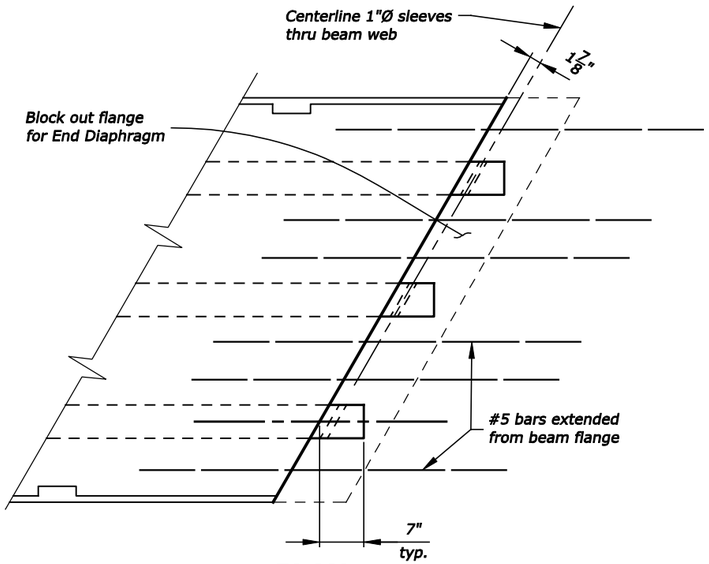
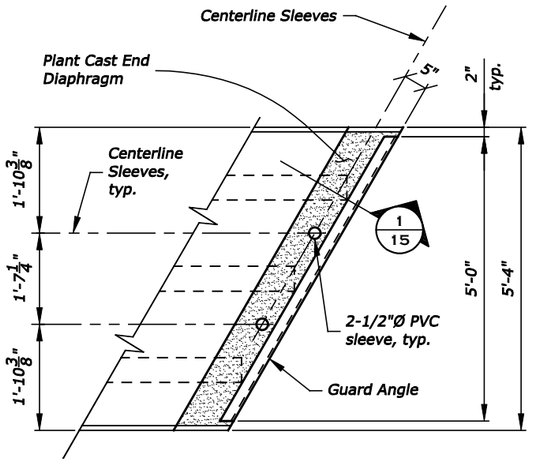
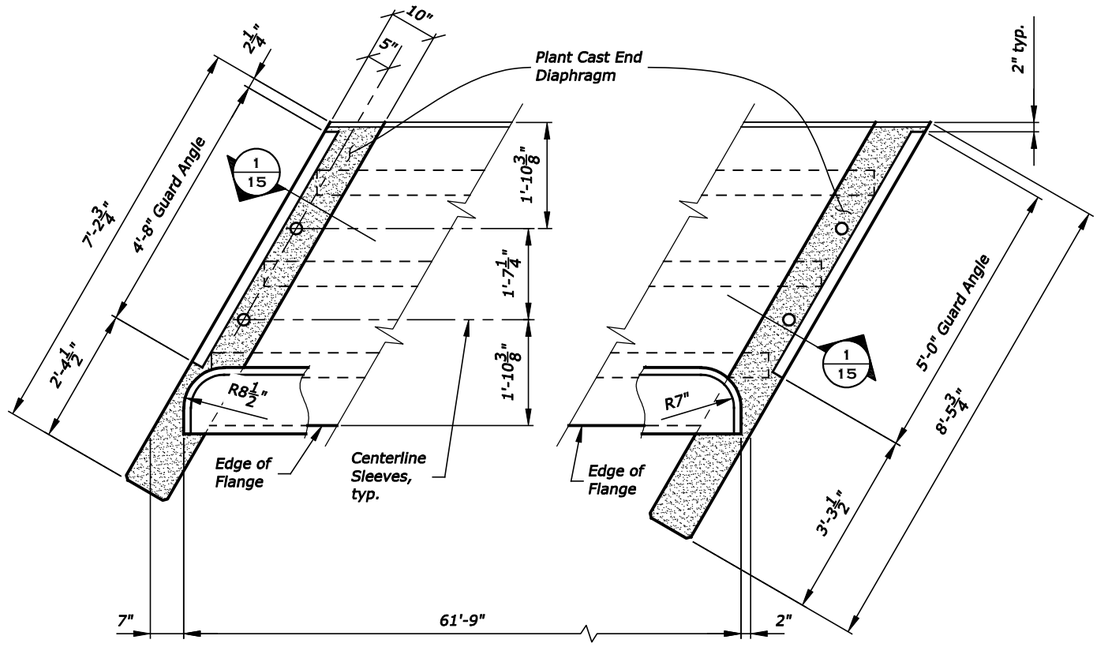


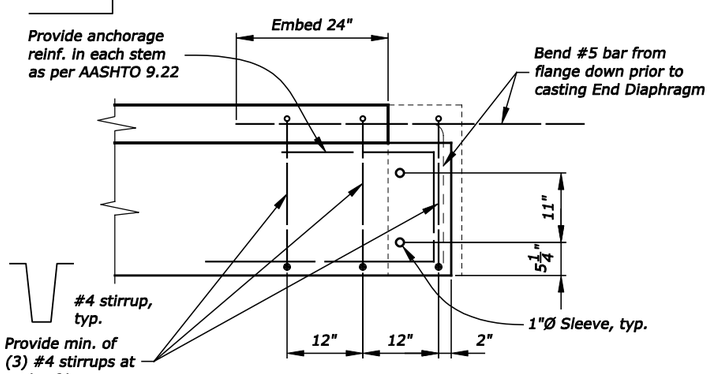
PLAN



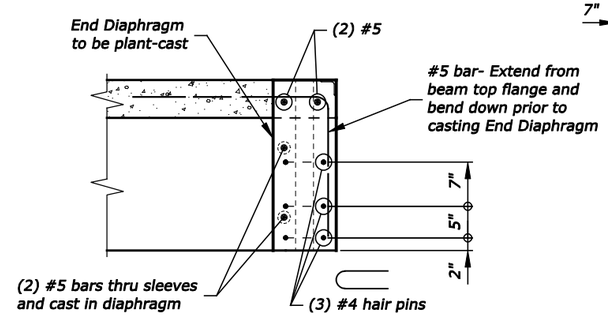
B/15 **DETAIL** INTERIOR BEAM END
Scale: 1/2" = 1'-0"



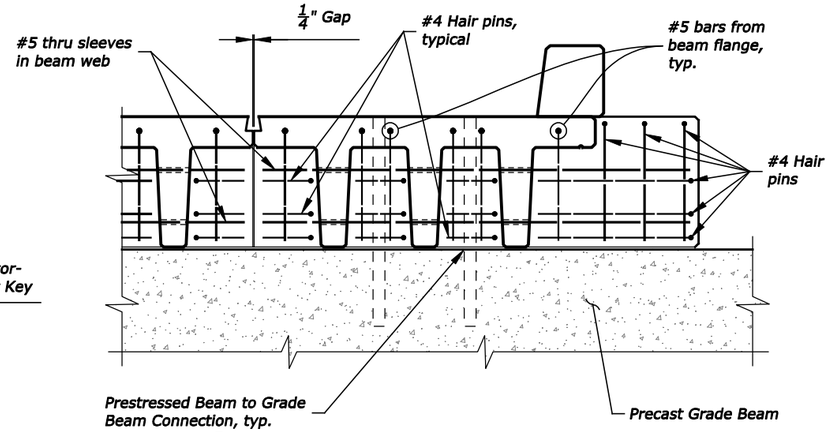
C/15 **DETAIL** EXTERIOR BEAM END
Scale: 1/2" = 1'-0"



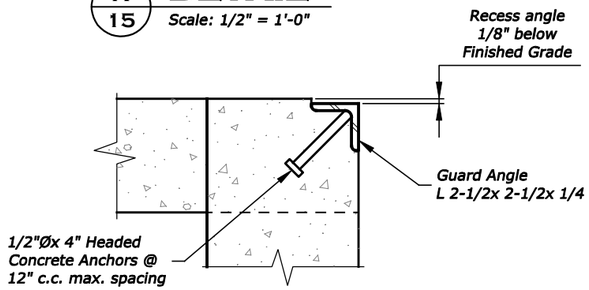
A/15 **DETAIL**
Scale: 1/2" = 1'-0"



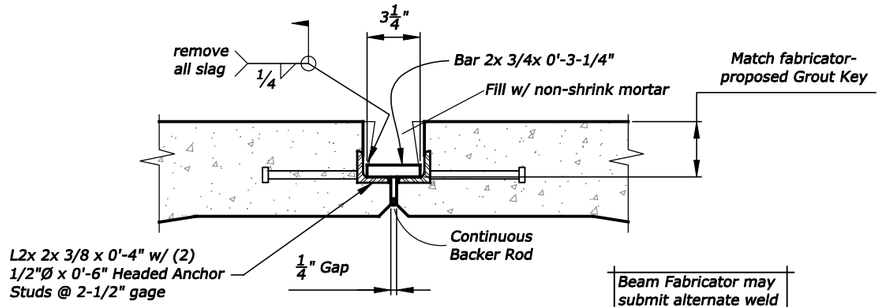
1/15 **SECTION**
Scale: 1/2" = 1'-0"



2/15 **SECTION** END DIAPHRAGM REINFORCING
Scale: 3/8" = 1'-0"



GUARD ANGLE DETAIL
Not to Scale



WELD TIE DETAIL
Not to Scale

Beam Fabricator may submit alternate weld tie detail for approval.

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POTTER CREEK BRIDGE NO. 534-15.7

SUPERSTRUCTURE DETAILS

Date: SEP 08
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POTTER CREEK BRIDGE
NSFR 534 MP 15.7
ROADWAY CROSS SECTIONS

PREPARED BY : D&A, P.C.
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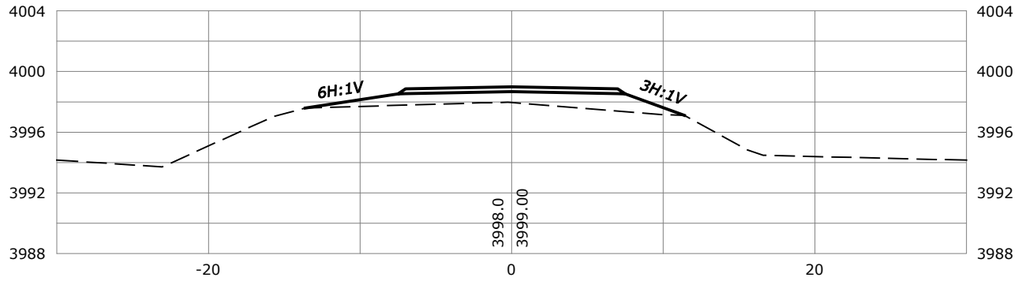
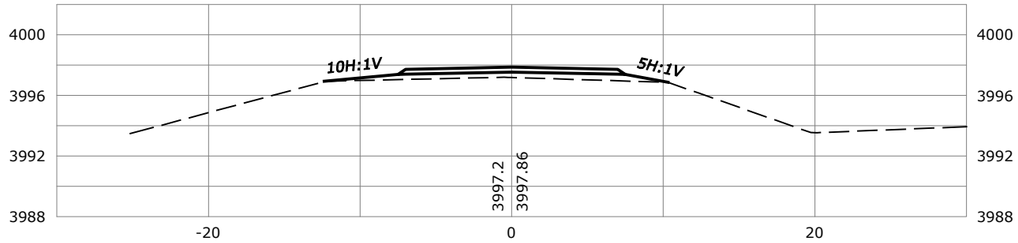
Phone 406721-4320 Fax 406549-8571

3+30



3+10



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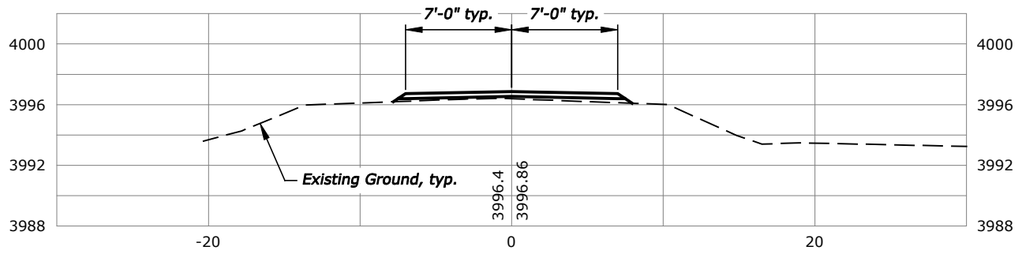
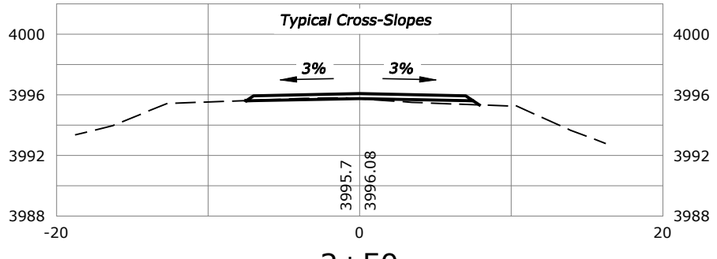
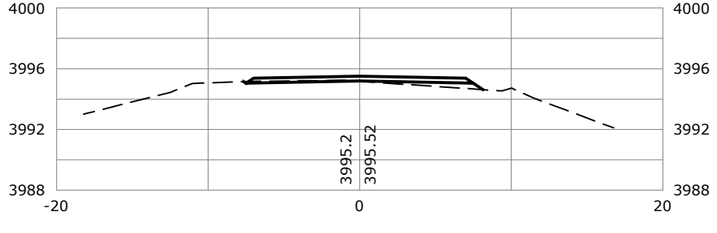


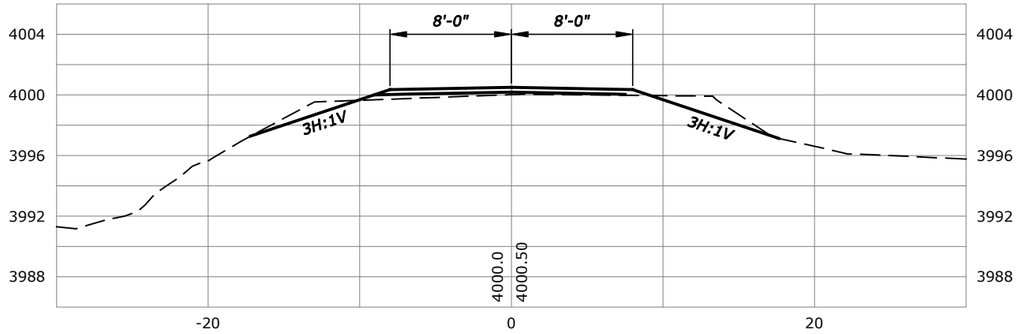
2+70



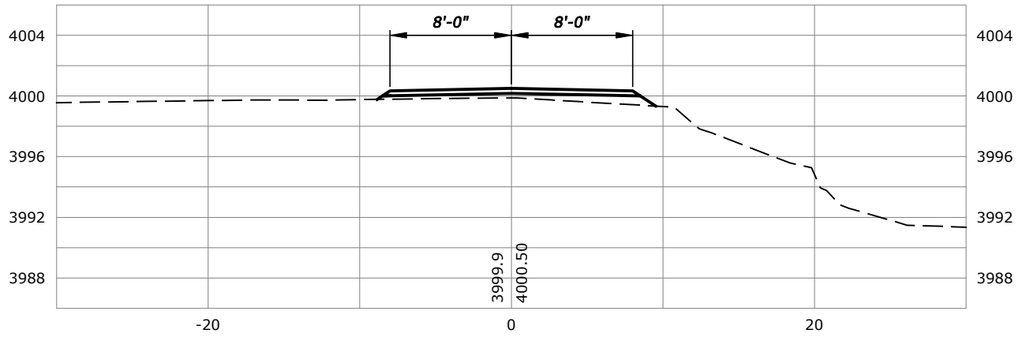
2+50



4+42.50



3+82.50



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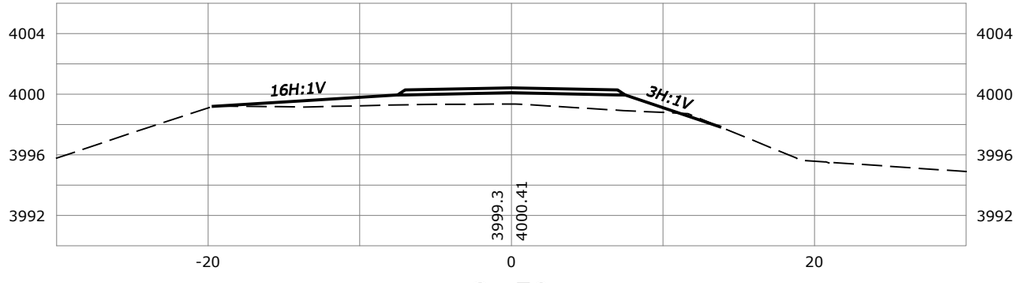

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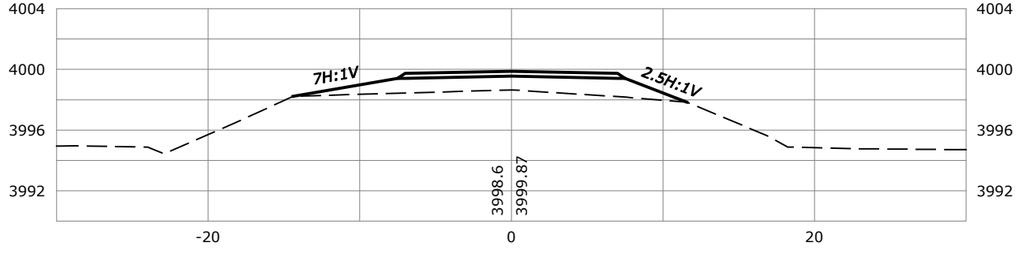
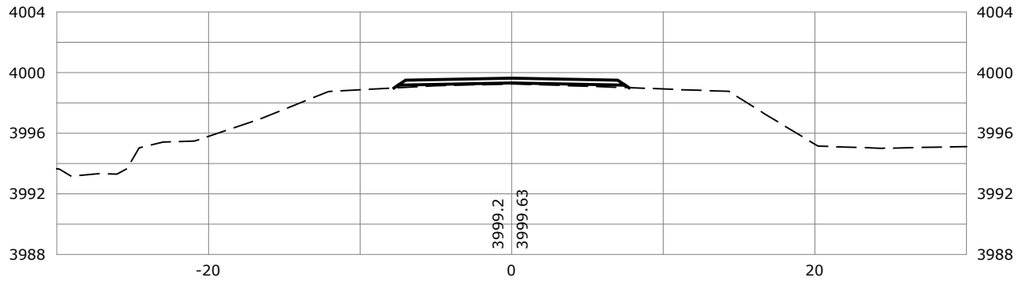


POTTER CREEK BRIDGE
NSFR 534 MP 15.7
ROADWAY CROSS SECTIONS

PREPARED BY : D&A, P.C.
CONSULTING ENGINEERS & LAND SURVEYORS
3305 Russell Street, Missoula, Montana 59801-4091
Phone 406721-4320 Fax 406549-8371

SHEET XS2 OF XS2

5+10



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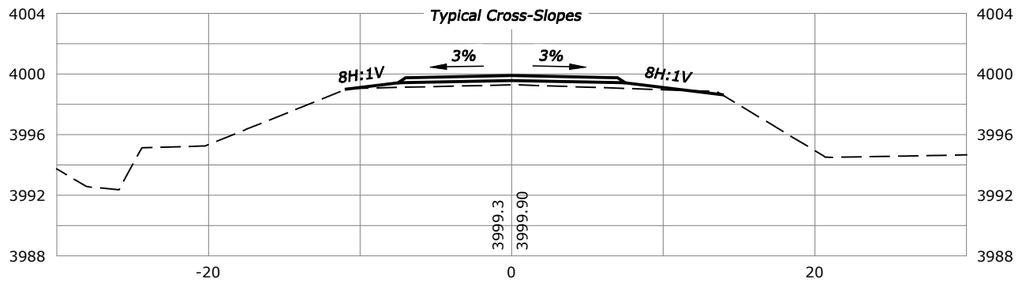

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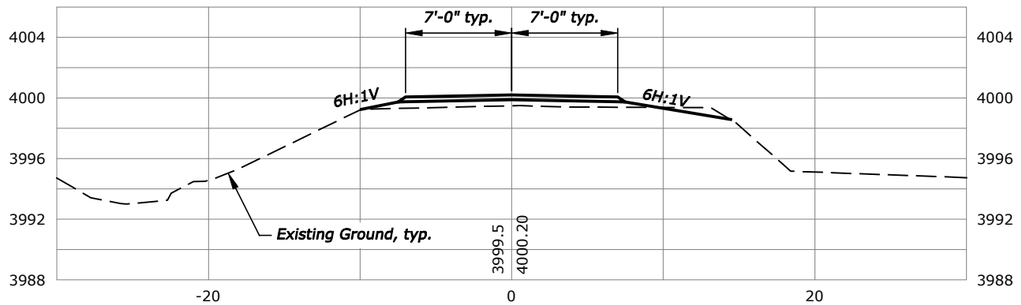

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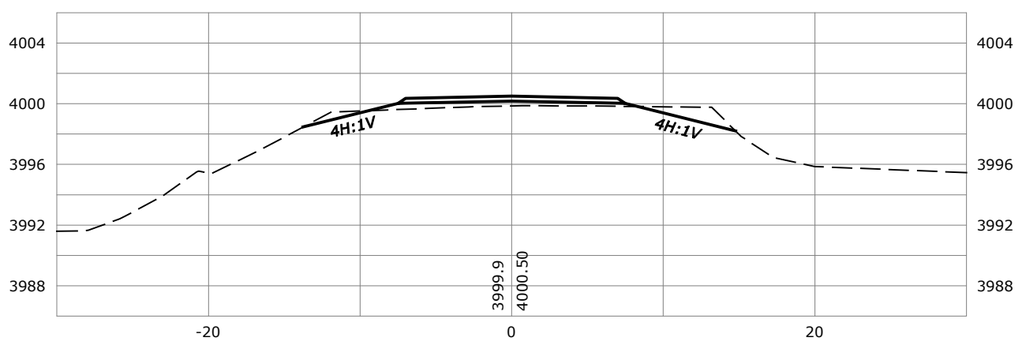

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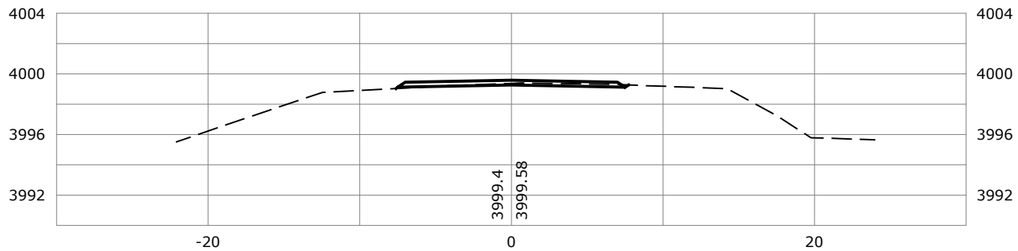

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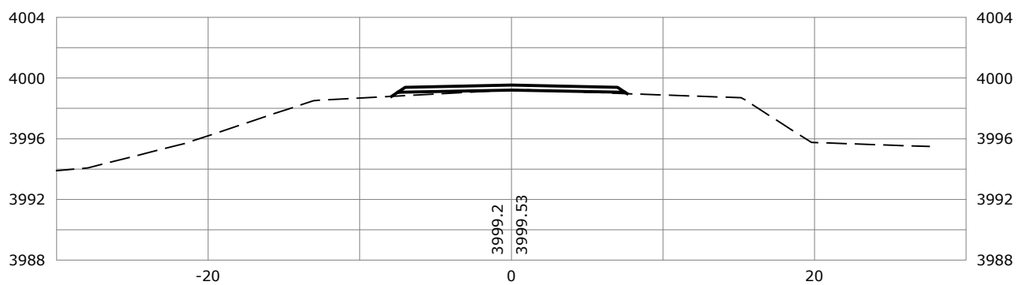

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